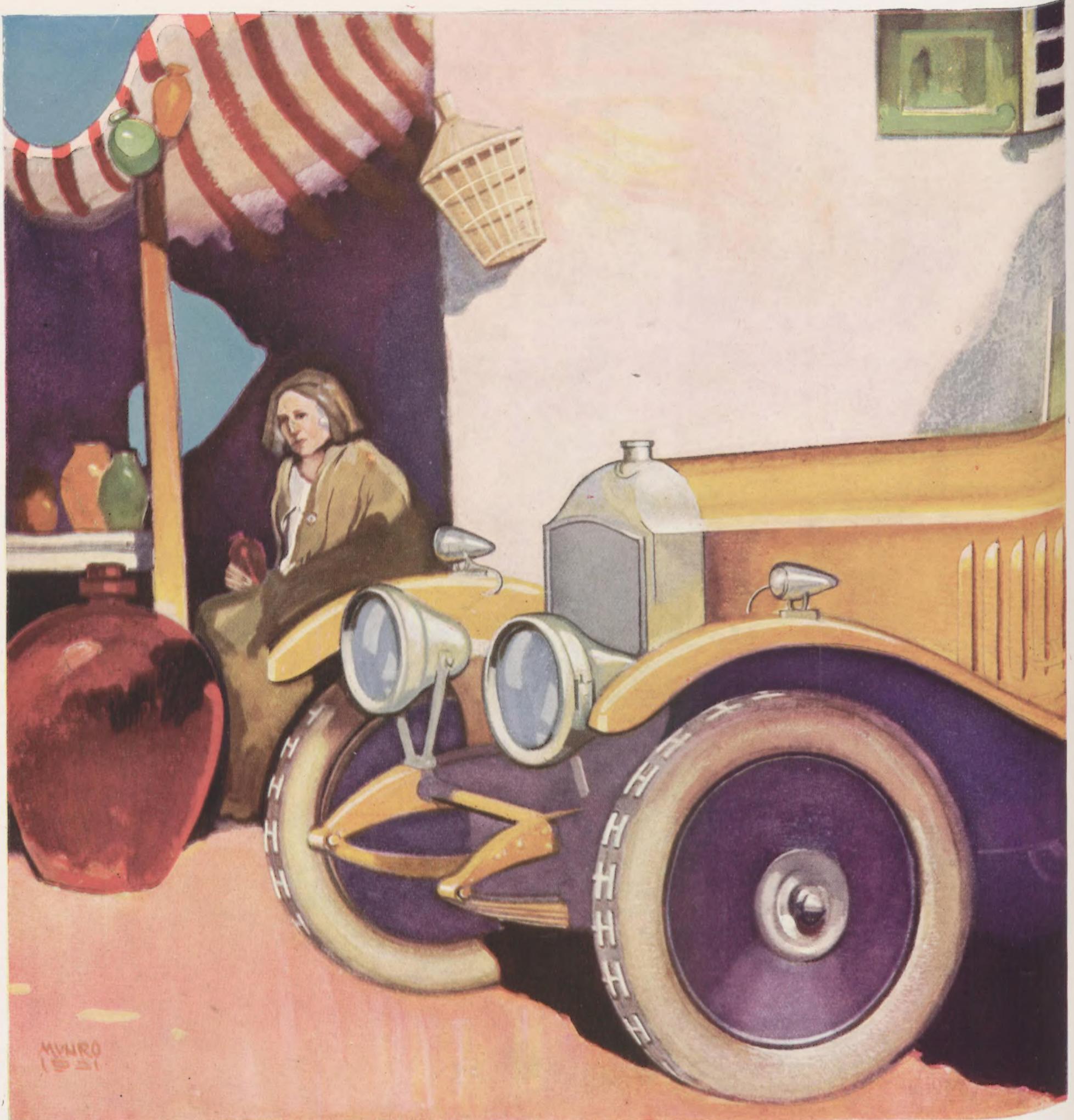


The MOTOR OWNER

December 1927



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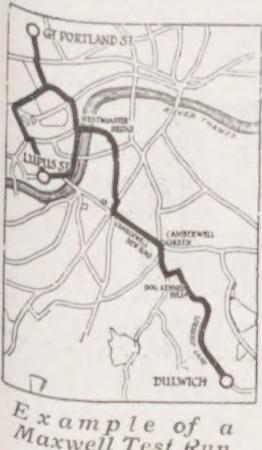
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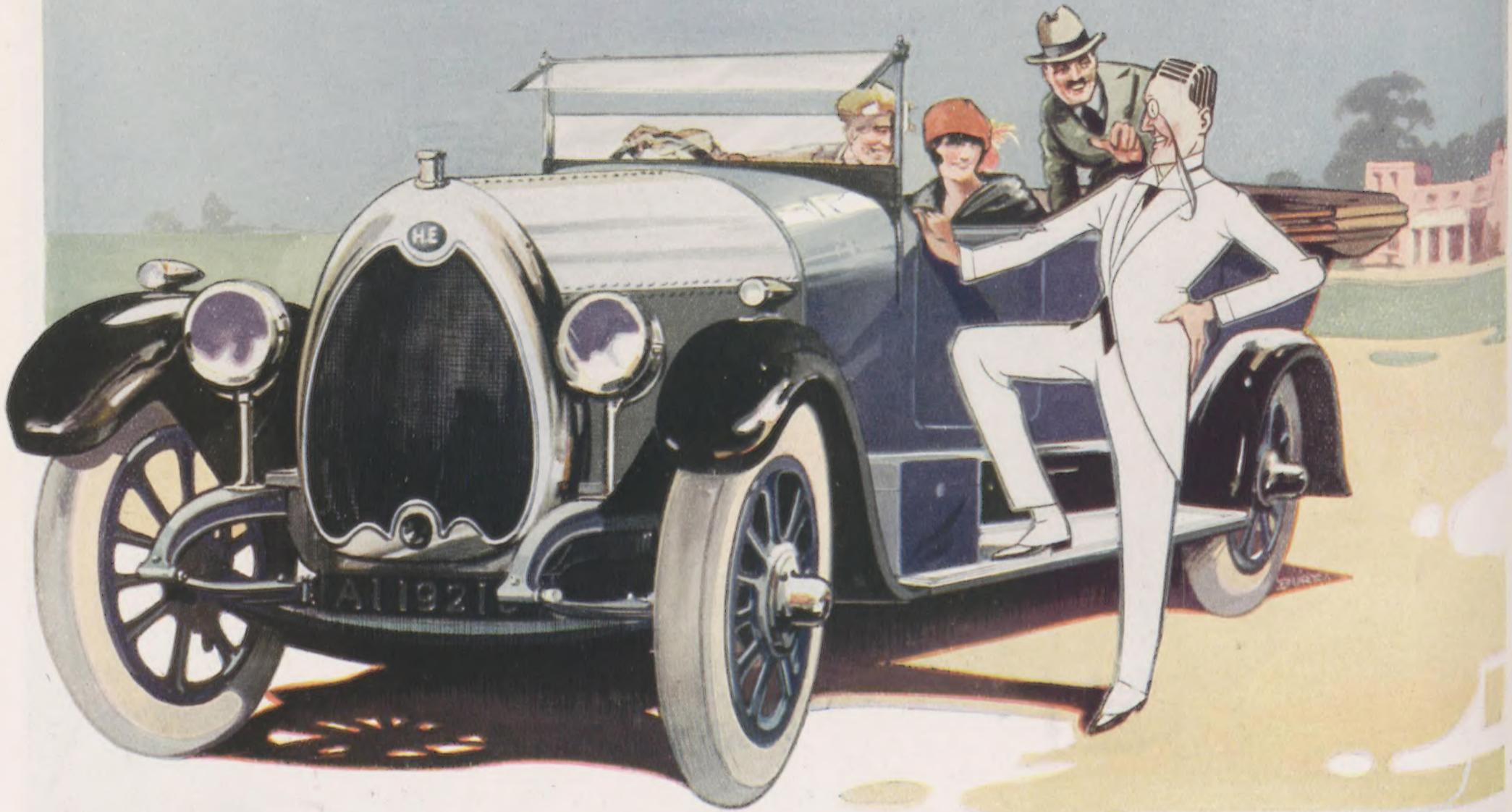
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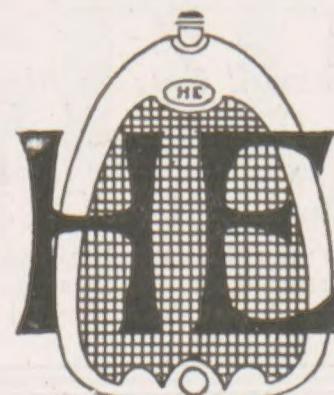
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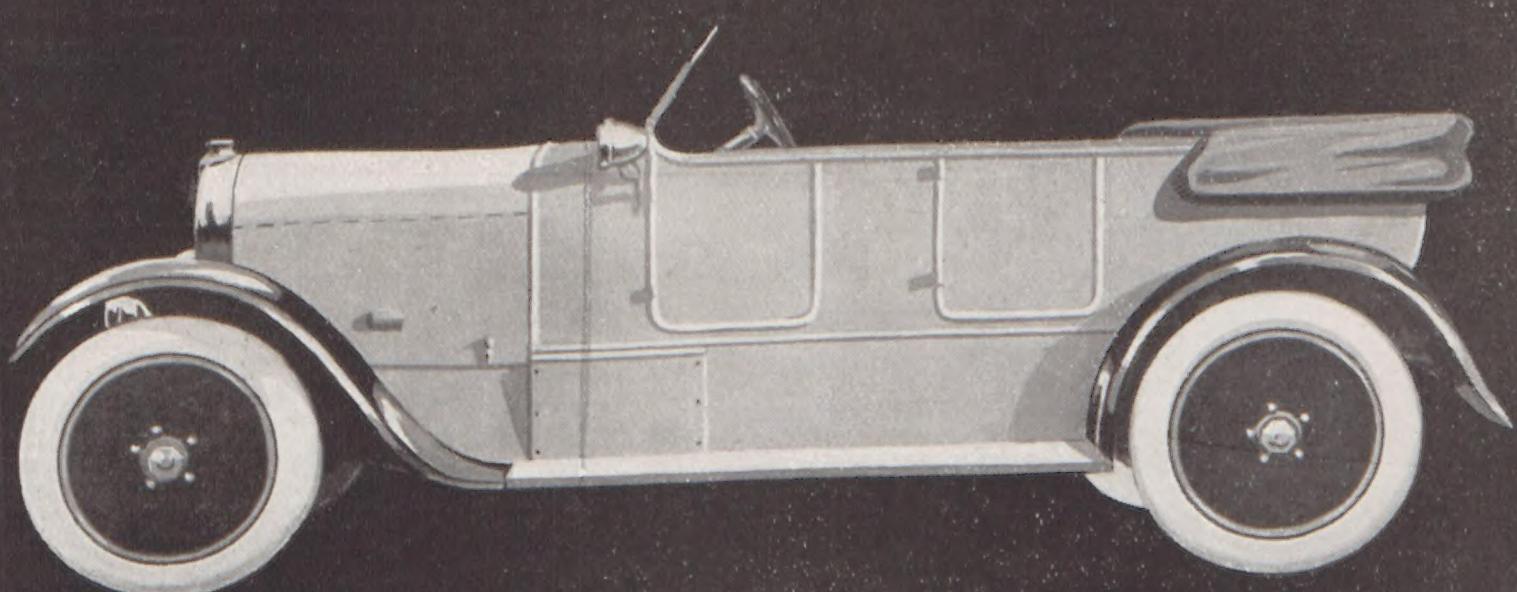
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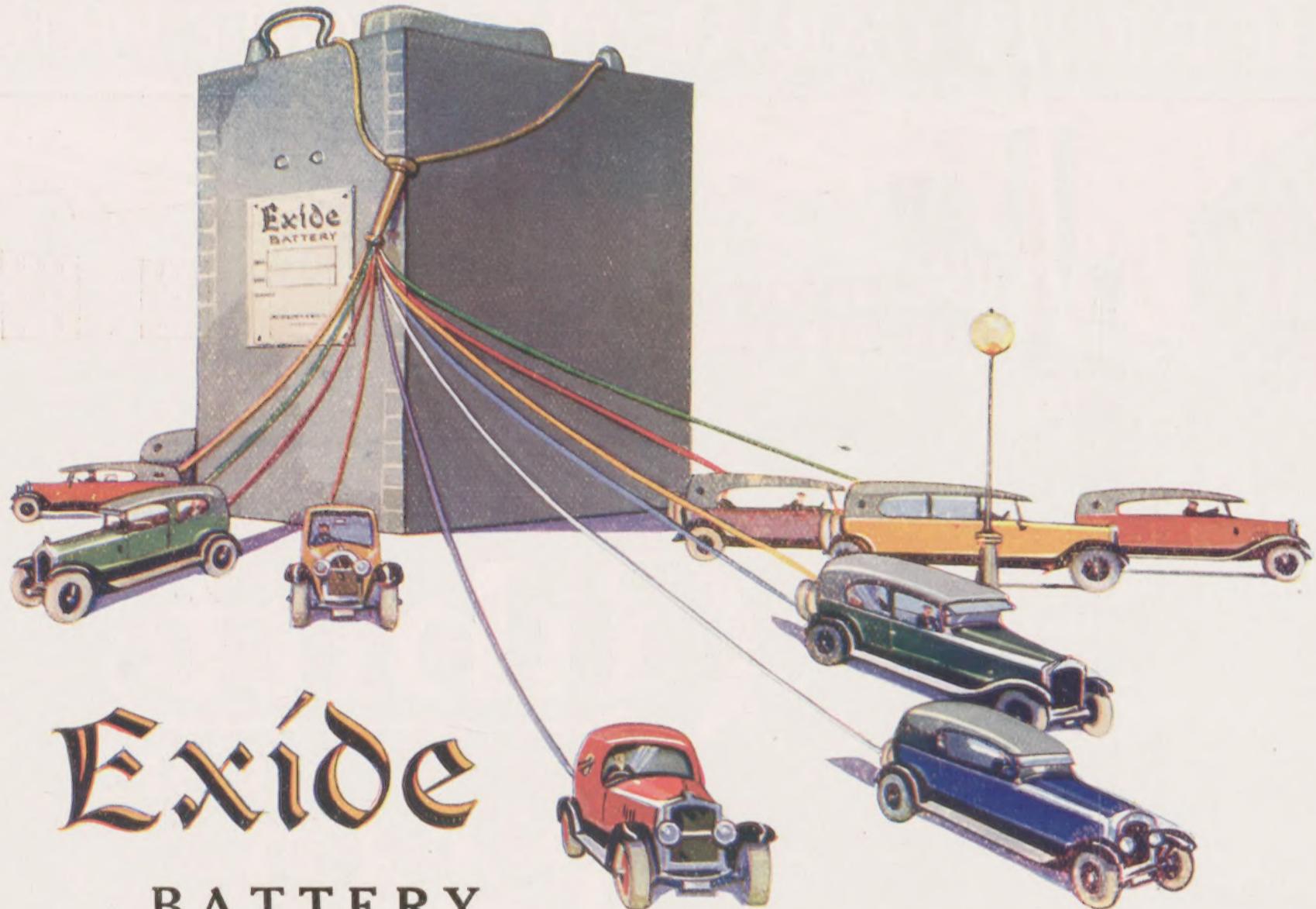
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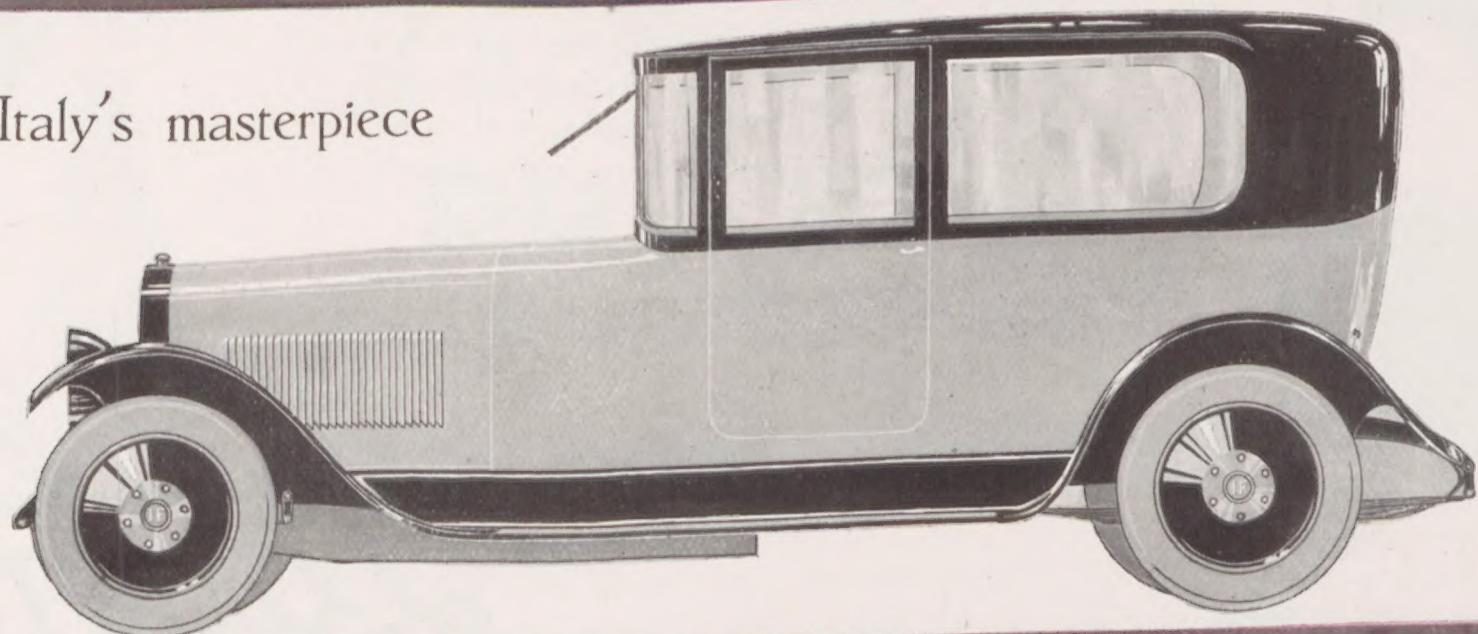
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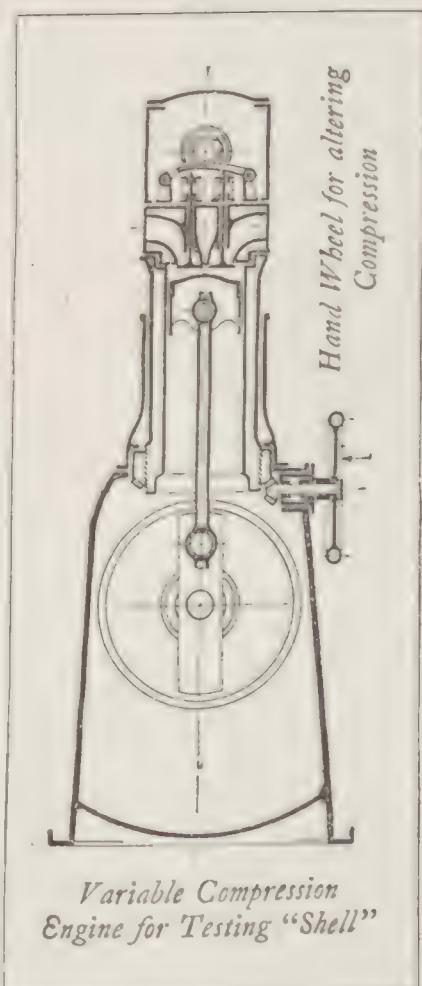
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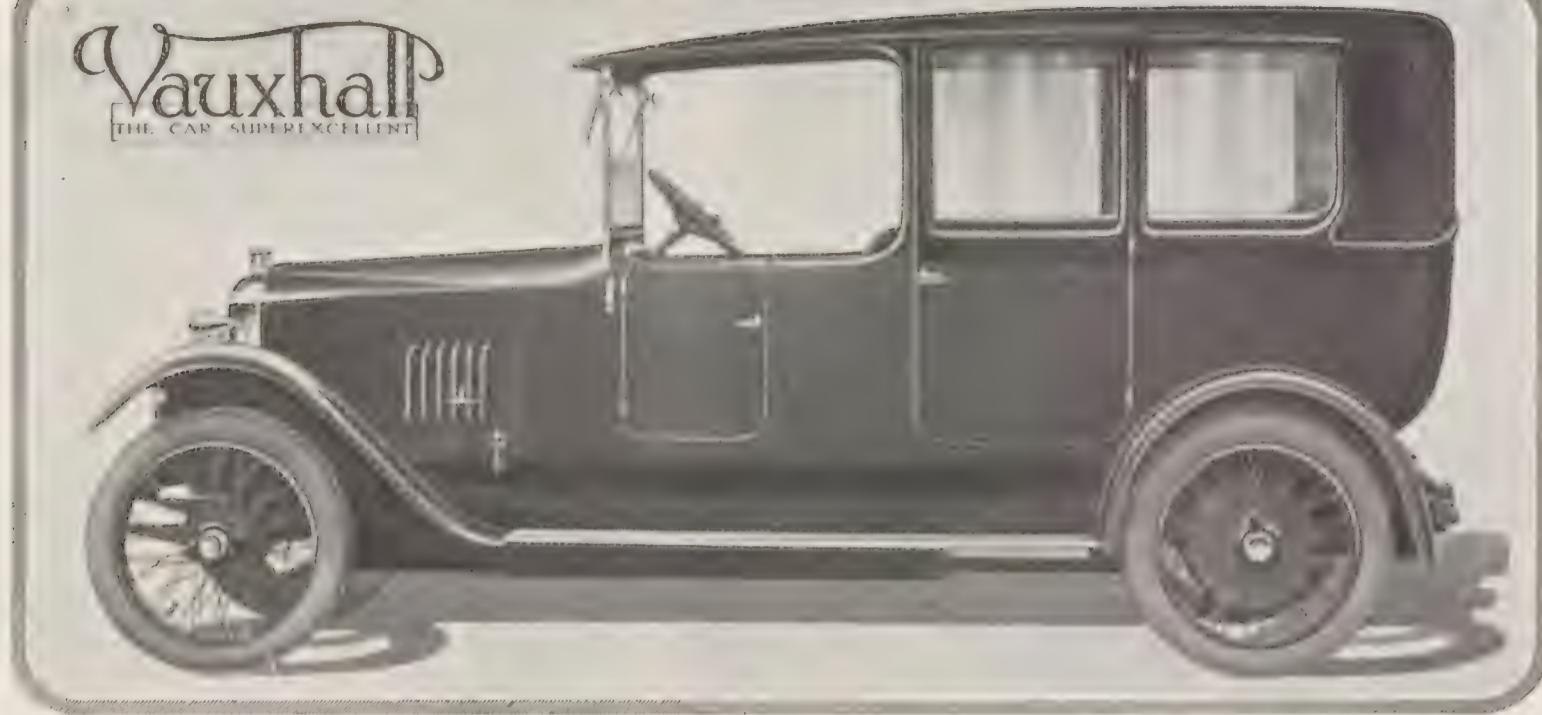
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*Interior view of a special 25 h.p.
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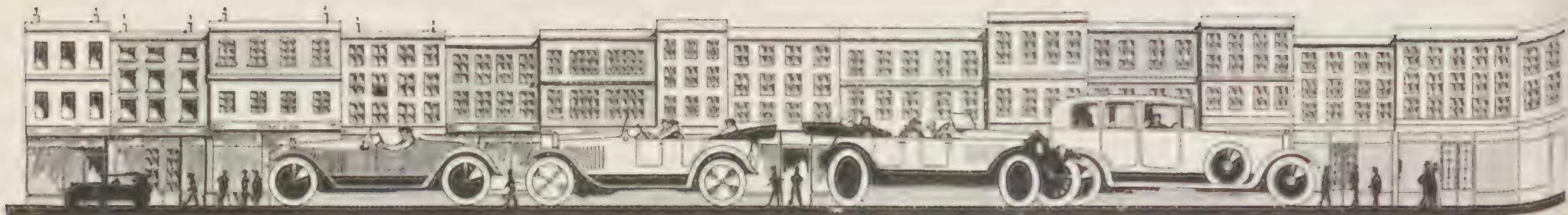
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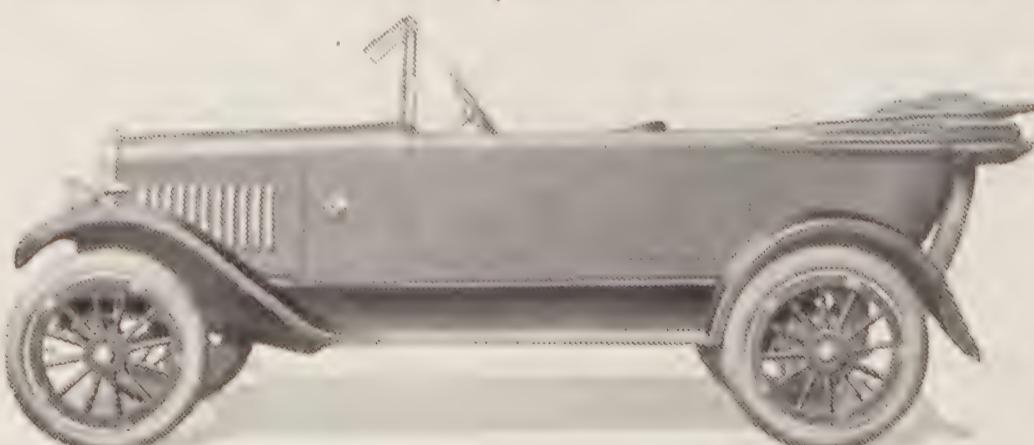
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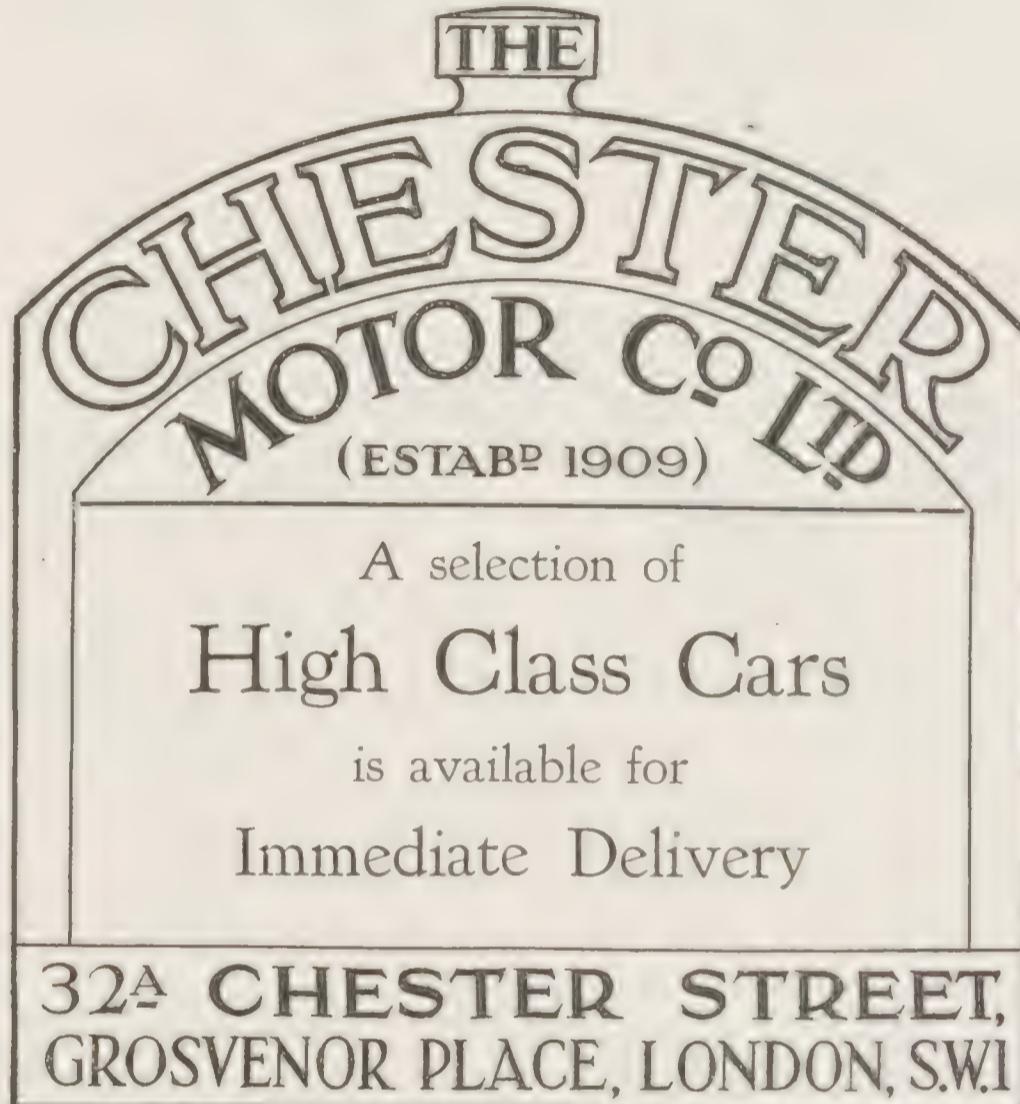
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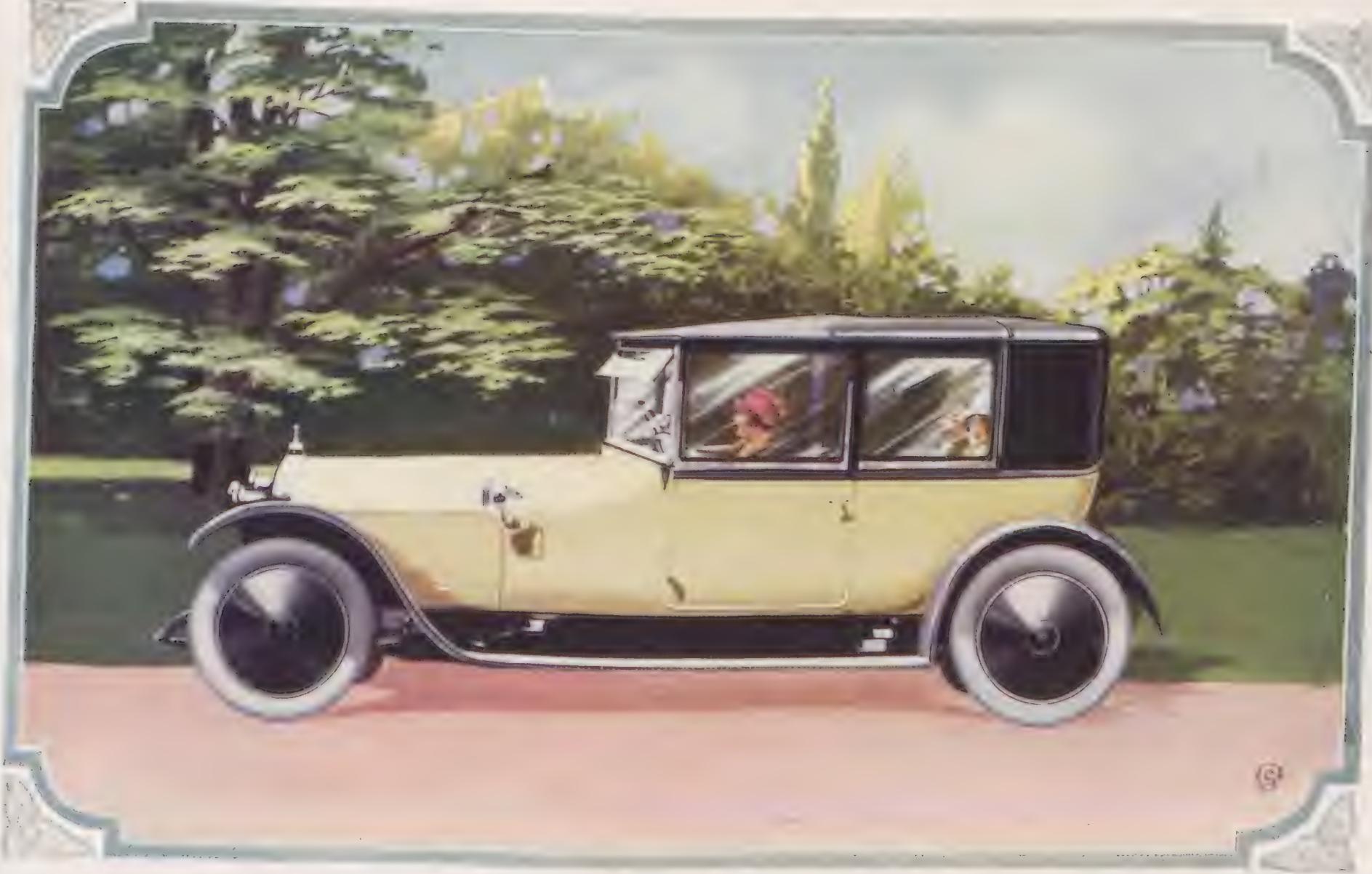
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TWO HUNDRED MILES RACE

at Brooklands, October 22nd, 1921

ONCE AGAIN DEMONSTRATED ITS SUPERIORITY

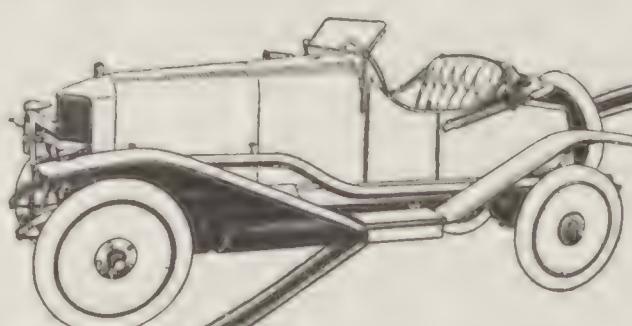
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At Le Mans, 18th September, 1921

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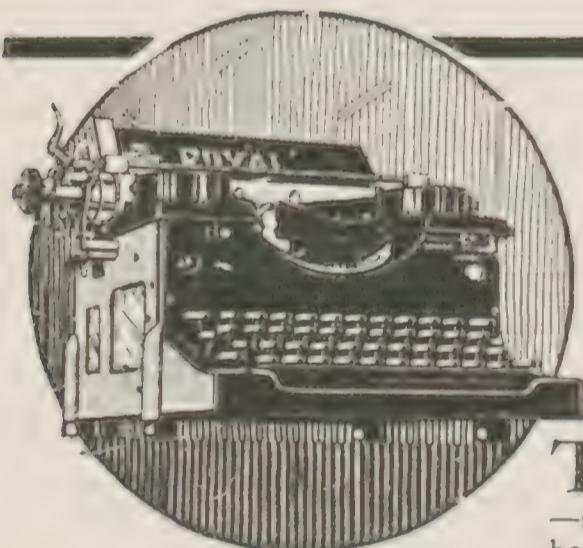
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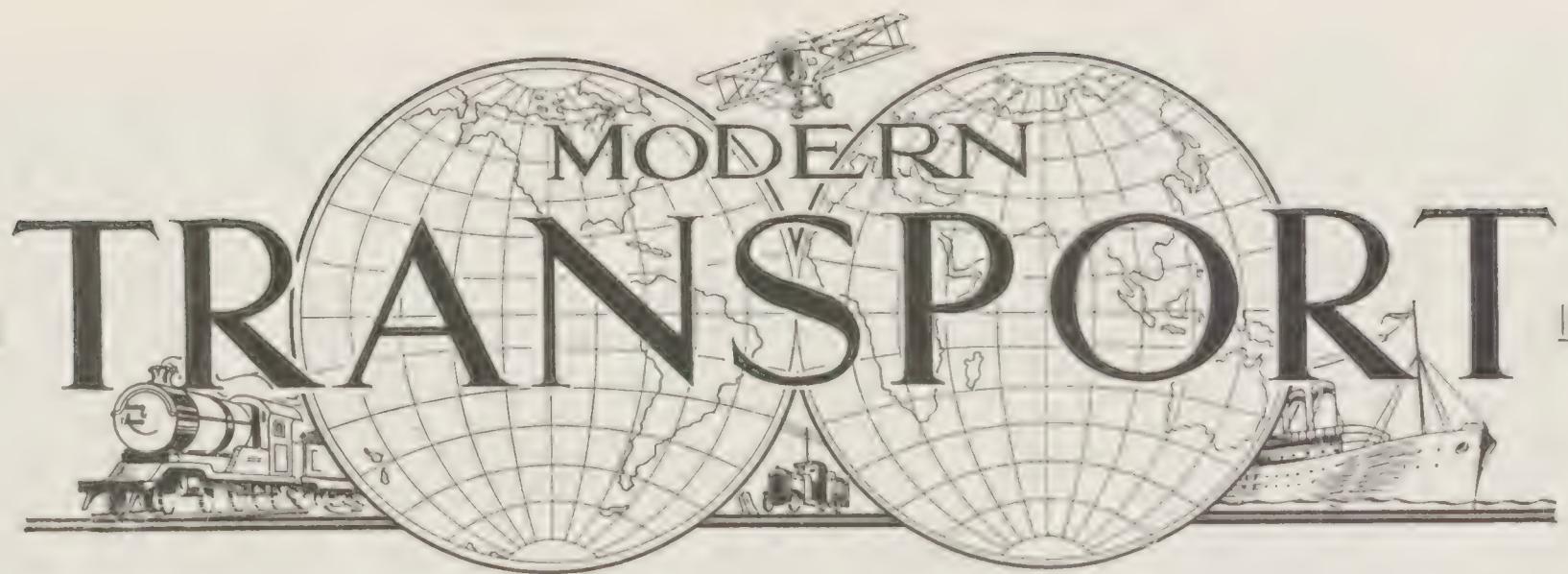


The striking picture of the winning car, Talbot Darracq, No. 33, driven by Major H. O. D. Seagrave, which, reproduced in four colours, forms the cover of THE MOTOR-OWNER Souvenir of the great 200 Miles Light Car Race.

Beneath is a portrait, also in colour, of Major Seagrave, who completed the course of 73 laps, or slightly more than 200 miles, in 2 hours 16 mins. 26 secs. This time gives an average speed of more than 88 miles an hour.

THE MOTOR-OWNER SOUVENIR OF THE 200 MILES RACE.

In view not only of the tremendous immediate interest and practical value of the recent International 200 Miles Light Car Race at Brooklands, but also of its historic nature, THE MOTOR-OWNER has produced a profusely illustrated Souvenir of the event, with a striking cover design in colours showing the winning car and driver. This design is reproduced in ordinary half-tone above. Copies of THE MOTOR-OWNER Souvenir, price one shilling, may be obtained direct from the Publisher, THE MOTOR-OWNER, 10, Henrietta Street, Covent Garden, W.C.2., post free for 1s. 4d.



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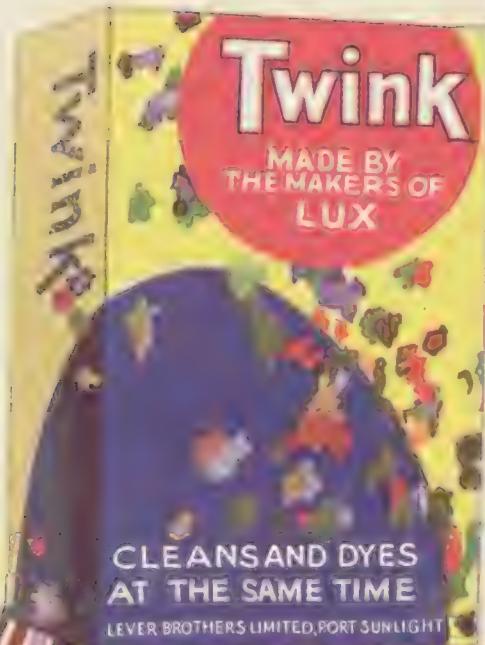
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THE MOTOR-OWNER

DECEMBER
1921



VOL. III
NO. 31

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The Editor will be pleased to consider contributions of special interest to the car owner, provided they are of high quality and in every way suitable to the magazine. Short illustrated articles are preferred, dealing with any aspect of private motoring, either as regards touring or the home management of the car. First-class snapshots of roadside scenes or incidents are particularly desired. All photographs and sketches should be fully titled on the backs and bear the name and address of the sender.

Contributions should be addressed to the Editor of "The Motor-Owner," 10, Henrietta Street, W.C.2, and should be accompanied by a stamped, addressed envelope. While every effort will be made to return them if unsuitable, the Editor cannot hold himself responsible in case of loss or damage.

WANTED : YOUTH AND AN EASY CONSCIENCE!

I T ' S S O S I M P L E !

On the score that "nothing amuses us so much as the misfortunes of our friends," skiing is provocative of much mirth. This merry party, snapped at Müren, has a generous bespattering of snow; it is charitable not to inquire too closely into the cause.



THE HEADLAMP QUESTION.

AFTER DUE REFLECTION.

"The Motor-Owner" considers Passing Events with an Open Mind.



DON'T SWITCH OFF.

THE Royal Automobile Club has made a ruling against the practice of switching off headlamps. For ourselves we shall accept the dictum, and we advise all our readers to do the same. Yet we by no means wholly agree with the wisdom of the suggestion. If switching off is practised with the necessary precautions, there can be no danger, and it is incontrovertible that such an action materially adds to the safety of motor-cyclists, cyclists, motor-cars without good headlamps, and other forms of approaching traffic. When meeting all such traffic, we have invariably switched off for their benefit. But if when we switched off we could not see an ample clear stretch of unoccupied road in front of us, we have slowed down materially, or even stopped. In short, we have always been willing—like thousands of other motorists—to shoulder momentary inconvenience for the benefit of other road users who happened at the moment to be less efficiently equipped for lighting than we were ourselves. The example of danger given by the R.A.C., namely the possibility of running into some unlit vehicle ahead, can only be a possibility for extremely foolish "switchers off." It is, in short, preposterous, as any such possibility automatically negatives the obvious assumption that one is prepared to suffer momentary inconvenience and loss of speed for the benefit of the other party. It is not merely a question of well-lit car meeting well-lit car. We think that the present needs of all road users would have been much better covered if the R.A.C. had pointed out the right way to drive when willing to switch off. That right way entails no danger. Motorists *not* willing to adopt it should certainly not switch off at all.

AND DIMMER SWITCHES.

And why in the name of all that purports to be common sense does the

R.A.C. totally ignore the question of the use of dimmer switches? Surely this legislative assembly of the Club must have been hard pressed for time? If one is not to use dimmer switches, nor to switch off, we very much fear that the statistics of accidents due to headlamp glare will show an increase. And that would hardly be a nice result from a ruling of the Royal Automobile Club. For our own part we consider the dimmer switch a valuable half-way house, though here again the person using it must be willing to drive with the necessary additional precaution. In legislating definitely for not switching off, without suggesting an alternative action to ensure the safety of other road users, the R.A.C. has made a regrettable error. We urge the Club immediately to rectify that mistake. If it can satisfy itself that the dimmer switch is an aid to the safety of other road users, it should immediately advocate the adoption of such devices, and specify the percentage of dimming desirable. We fear the Club has looked at the matter only—or mainly—from the point of view of the car driver. That is wrong.

In the meantime, however, uniformity of action is essential, and we therefore urge all motorists to adopt the ruling of the Club—and hope for the best.

HEADLAMPS IN TOWNS.

There are two further aspects of the automobile lighting question to which the R.A.C. might profitably give attention. There appears to be a growing number of motorists who insist upon using their headlamps in town. Sometimes, after being temporarily blinded, one finds that the sinning car is an American, equipped with headlamps only. But even then, apart from the fact that such equipment is illegal, what has the dimmer switch—almost universal in American makes—done? The use of headlamps in town is ridiculously unnecessary, and might well be made a legal offence.

And, further, there is often so little difference between the brilliance of side lamps and that of headlamps that even the former are dangerously dazzling. Here, again, the R.A.C. surely has ground for action.

MISUSE OF LIGHT CARS.

An enormous wave of light car popularity is threatening to engulf interest in all other types of vehicle, but we do not feel that this popularity, in its present degree, is permanent. We have not the slightest desire to belittle the capabilities of the light car, but it is such an attractive proposition that many people are likely to be led away by its fascination on the superficial score of economy. Economy is not a matter of a moment—it is a matter in which durability is probably the most important factor. How can an owner expect his car to be durable if he constantly subjects it to gross misuse? It is a fact which any reader can deduce for himself that many, if not the majority of light cars are habitually over-laden and over-driven. Because the car will do something over fifty miles an hour, and because it will carry five people, it is made to do it constantly—one almost said continuously. This is not fair treatment; the fact of the matter is that the man who really does require this performance from his car, and insists upon having it, has no right to drive a light car at all—he needs a vehicle of the 13.9 h.p. type, which possesses the superior robustness calculated to stand that which in the smaller car is simple misuse. As we have said, this is not an attempt to belittle the capabilities of the type of car in question—it is a warning. Those who carry great weights or accomplish great speeds with tiny engines and light chassis need not expect durability; and if economy was the deciding factor in the purchase of the car, they are likely to suffer painful disappointment at some time in the future. That the painful moment is so far in the future is rather wonderful.

WHY THE DELAY?

THE COLONIAL QUESTION.

The question of export is one of absolutely vital importance to the automobile industry of this country, and, although we have been assured by a prominent manufacturer that our view is incorrect, we adhere to our belief that, speaking generally, the matter is not given sufficient attention. Increased output is, in large measure, the secret of decreased price; and the fact that the actual home market in these isles is limited—even though the limit may not yet have been reached—gives rise to visions of surplus output. The outlet for this surplus is obviously the overseas, and particularly the Colonial, markets. No real, concerted attempt has been made to tap those markets. A few firms have a constant, if small, demand from India, South Africa, Australia and so on; but the motor industry as a whole has not given serious consideration to the question. And yet the Colonies would wholeheartedly welcome a British car which had some pretensions to competitive equality on the grounds of suitability and price with American vehicles. We realise the difficulties; we realise, also, that the American car has secured a firm foothold in all those markets which we might have legitimately considered our own. But if we could, or would, only introduce to those markets a suitable vehicle, the sense and sentiment of overseas motorists would do the rest. Sir William Joynson Hicks had these matters in mind when, at a recent banquet, he put forward the tentative suggestion that something in the nature of an amalgamation of several manufacturers to produce in large quantities cars of the necessary types might solve the problem. We wonder.

LOWER TAXATION— BUT WHEN?

Motor-owners in general are, not unnaturally, hoping momentarily to hear that their burden of taxation is to be made lighter for the future, and as December 31st draws nearer without a sign of the welcome tidings even optim-

mism on the subject is becoming somewhat strained. In view of the approximate surplus of three millions derived from automobile taxation in this first year under the new scheme, and in view also of public utterances by men whose opinion should carry weight, there seems to be little doubt that the burden will be lightened. But when? If at all, why not at the conclusion of the trial year—the past twelve months were admittedly experimental—and the beginning of a new period? If the motorist is entitled to relief, why delay? Delay, as a matter of fact, is even increasing the burden which even the Treasury admits is heavier than necessary, for, when existing licences run out at the end of the year, few people will care to take out renewals more than three months ahead in case the scale of taxation is lowered in the meantime—

and a licence taken for a shorter period than twelve whole months is charged at a higher rate. A 14 h.p. car, for instance, is chargeable at the rate of £16 16s., if quarterly licences are taken out. In spite of this fact, however, it would be a risky proceeding to purchase a 12-months licence on January 1st, 1922—the word "refund" is printed in very small type in the lexicon of our leaders!

A HEARTY WELCOME.

The war period and its hardly less unsettled aftermath have seen many romances and tragedies in the world of business. In our own particular little sphere—the large though limited realm of the motor industry—none has had the gilded glamour, the pathetic pathos, the heartening hopes, or the final triumph of the Angus-Sanderson proposition. It leapt from brain to business with meteoric flash. It rushed its fame to the far-flung ends of the world. It created a name and goodwill for itself unsurpassed in the annals of our automobile history. And from this pinnacle of glory it fell—submerged in the then all-too-prevailing maelstrom of financial difficulties.

It is with the heartiest gratification that we welcome the news of the successful launching of a new company to carry on the production of Angus-Sanderson cars. We have one on the staff which has now done almost 24,000 miles. We make no bones about our opinion of it. Money can buy no finer value. The coachwork was not so good as it might have been, and we had to have the car repainted and varnished. But all that has been put right for the new models, and one or two other minor points improved. In 24,000 miles our lack of reliability totals nil minutes nil seconds. And for comfort, good average touring speed, and reasonable economy, the Angus-Sanderson is quite an exceptional proposition. We therefore heartily welcome the re-birth of this British enterprise and recommend the car with complete confidence.



CONTENT.

The above striking picture is of an eminent motor-car manufacturer who has sold his complete yearly output, till the day of judgment clearly indicates the future tendency of the trade.

Why worry?

A TRULY DREADFUL POSITION.

THE CHRISTMAS VISITOR.



Owner (greatly excited, to burglar) : "For God's sake, don't throw up your hands!"

THE BROAD VIEW.

A résumé of show impressions, wherein it is suggested that the light car is in danger of receiving an amount of attention which is out of proportion to its importance in the automobile scheme of things.

HAD the show any lesson for the student of automobile development? Held it any promise for those who even to-day cannot find a vehicle absolutely to suit their requirements in every respect?

The answer is most decidedly in the affirmative in both cases, but it is only by sitting down quietly when the show is over and applying the process of introspection to one's somewhat jumbled impressions that the lessons and the promises can be appreciated.

One general impression is that the whole industry has dashed wildly into the light car market. There is promise in this, for the greater the number of cars of the same type but different makes, the greater is the competition and the keener the necessity for each individual maker to perfect his product.

The result is evident now, and will be more marked later. The user of the type of car in question is exceptionally well catered for; he has a wide range of wonderfully efficient little vehicles to choose from. The average price is becoming more and more moderate, and the serviceability of the vehicles is getting greater and greater.

That is the promise; but what is the lesson? Is there not a point at which the undoubted value of competition in industry depreciates—a point at which its "power curve" falls over upon itself, so to speak? In the past, the man who could only just afford to motor was somewhat neglected. Now he is being set upon a pedestal and pretty nearly worshipped. In a few

words, is not the cult of the light car in danger of being carried too far?

The trouble is not with the car—it is with the owner. There are a certain number of motorists who are really entitled, by their requirements and the use to which they habitually put the vehicle, to possess light cars, but the number of people who actually do own them is enormously in excess. One has only to travel on a popular main road on a fine Sunday to appreciate the point. The great majority of cars in use are two-seaters; the great majority of these are full to overflowing—seldom, indeed, does one see a "double-dickey" out of full use.

The person who is really entitled to have and to hold a light car until deterioration or bankruptcy do their part is he who habitually uses his car as a two-seater and only in emergency opens the "dickey." This is a bold statement; I can imagine the storm

of protest it may raise, especially from those makers—and they are many—who normally supply ordinary touring four or five-seater bodies on their 10.5 or 11.9 chassis. Rightly or wrongly, however, it is my conviction; and, as I said before, the fault is not with the car. Any good 11.9 h.p. vehicle will answer the most astounding demands that may be made upon it without a murmur. The fault is with the owner who, once having found out "what he can get out of her," regards that extreme performance as a basis for general running. He finds that with four up and luggage, he can *nearly* touch 60. His constant endeavour thereafter is to *quite* touch 60. Now, I ask you, is it fair treatment?

Why, then, does this man buy a particular car? Because, of course, he is unable to find anything of approximately the same capabilities costing £50 or so less in purchase price and a pound or so less in taxation.

There is, in fact, a demand, based upon absolutely fallacious grounds, for super-efficiency from the smallest possible dimensions; and, so long as there is such a demand, there will be plenty of manufacturers eager to meet it.

The 11.9 h.p. car is a wonderful vehicle; but no car should be normally driven at the extreme of its capabilities—that is a test to destruction which is justifiable only for educational purposes on bench or track. From it the maker learns valuable lessons. From it the inconsiderate owner also will learn a lesson—the lesson that lack of consideration for his car necessitates



The design of this six-cylinder A.C. engine is clean enough to satisfy the most severe critic.

MEETING THE DEMAND.

excess of consideration of his banking account.

Presuming for a moment that my feelings in these matters are generally held, one still cannot blame the manufacturers for meeting an evident demand. It is what he exists for. It was one of Mr. Edge's complaints in the old days, I remember, that the drawing office always wanted to make the public buy that which it—the drawing office—thought it ought to have, and not what the public thought it wanted. Well and good; if a man has a clear idea of what he wants and the money to pay for it, there is no reason why he should not have it. If one manufacturer conscientiously believes that the article will not fulfil the would-be purchaser's requirements and refuses to supply it, there will always be plenty to fill the breach. And the man with a clear idea of his wants is mostly very pig-headed. Who should know better than himself what he wants?

As a matter of fact, so far as the average light car purchaser is concerned, any automobile designer in the country knows better. But there it is—trade

is trade, and a demand is a demand. It is a pity that a thoroughly sound product should be spoiled by misuse, but one must make allowances for human nature. The general feeling is probably that if a car of 11.9 h.p. will carry four people in comfort and will run for long stretches in the neighbourhood of 50 miles an hour, it would be sheer waste of money to buy a car with a bigger engine.

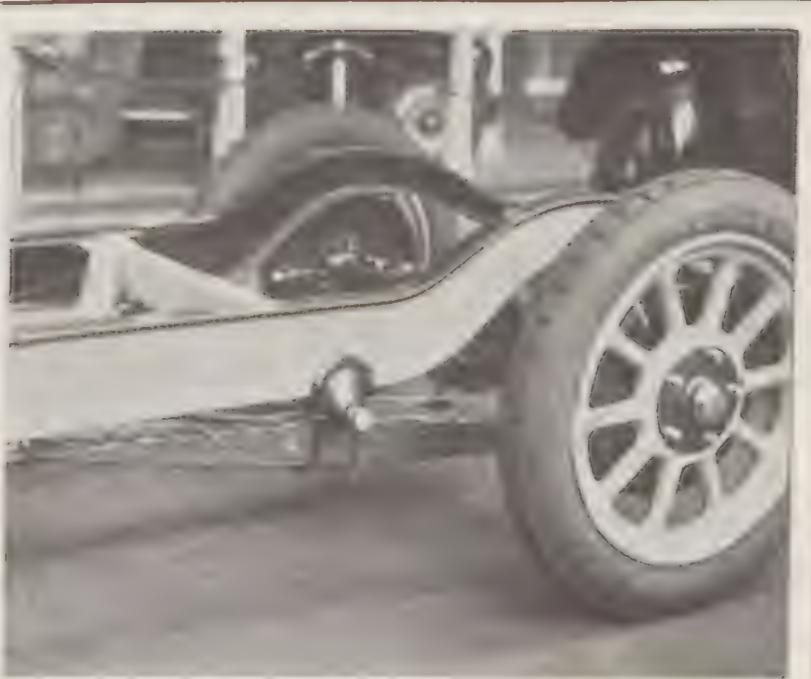
Because a little car is capable of touching almost the same figure of maximum speed as a much bigger car, the majority of people do not appreciate the essential difference between the two. An 11.9 can be kept running quite comfortably at, say, 40 miles an hour, and one does not ask more of a car of double the power. Both, on occasions, are let out, and then probably the 23.8 has the advantage only to the extent of a mile or so an hour. But compare the construction of the two engines and chassis, and imagine the proportionate stresses thrown upon them at given speeds. It is a simple matter of common sense that the more powerful and consequently more robust car can



A mechanical tyre pump is embodied in the F.N. gearbox—a refinement that should be more general.



The double cantilever rear springs of the Unic suggest great riding comfort. Suspension systems still show wide divergence.



Lack of camber is carried far in the Lorraine-Diétrich rear springs, which are actually slightly up-curved.

THE "MAN'S CAR."

stand the strain better than the small one, and will stand it longer—that is to say, deterioration due to sheer wear and tear will be much less rapid. Actual figures are probably unobtainable, but I should imagine that the wear and tear on an 11.9 h.p. engine and chassis at 40 miles an hour is equal to that on a 23.8 at 55 or maybe 60 miles an hour. This is pure guesswork, of course; the figures may be wildly wrong, but, anyway, the principle holds good.

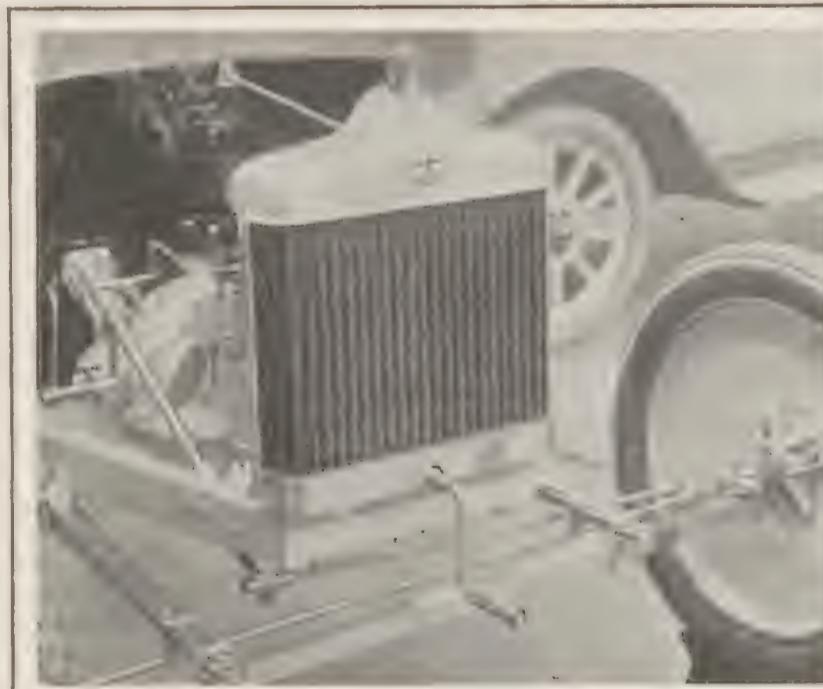
The concentrated lesson of the show in this respect, supplemented by observations on the road, is that one should be very sure of one's normal requirements before deciding upon a definite type and make of car. " Requirements " are simply the usual load that the car will be called upon to carry—whether two adults only, two and a child, or a greater weight—and the usual speed at which it will be driven. If the normal load be two and a child, and the normal open road speed 30 to 35 miles an hour, then undoubtedly the 11.9 h.p. car, or for that matter an even smaller vehicle, should be the very thing. But



Raucous horns are forbidden in the French capital. This Berliet, therefore, is fitted with two horns, for town and country, the switches, together with those for the lighting system, being situated under the steering wheel.

immediately one's requirements in regard to either weight or speed, or both, become more ambitious, a couple of horsepower more, and all that it indicates in the way of increased robustness, is very clearly indicated.

And so we come to a second lesson and promise of the show. There is, I hold, quite as great a potential market for a 13.9 h.p. car as for either the 11.9 h.p. or 15.9 h.p. type. It has points of advantage entirely its own, and has many of the advantages of both its larger and smaller sisters. This is a type, however, which has been neglected in the ever-increasing popularity of the true light car. There have been since the war several cars of the 75 mm. class which have attained to enormous popularity—a fact which in itself is evidence of the demand for such a vehicle. I am a great believer in the 13.9 type as the car which very many light car owners really want, although they may not yet realise it themselves, and consequently I was glad to find that such great firms as Austins, Vauxhalls and Sunbeams have joined with the others — among them Angus



The steering system of the new 8 h.p. Standard is suggestive of the Ford.



The steering wheel controls of the Straker-Squire include a mixture regulator.

A UTOPIAN IMPOSSIBILITY.

Sanderson, Rover, and J.H.E.—who already had a model of this type in existence, to add a chassis in the neighbourhood of 13.9 h.p. to their range.

This fact may be regarded as promise that the very large number of people who really require a little more than the 11.0 can possibly give them, will be better catered for; promise also that the light car may be subjected to proportionately less ill-treatment in the future.

Upon the resumption of motor manufacturing activities after the war the "one firm one model" policy was very largely adopted, and its adoption was generally hailed with delight. It will be noted, however, that while for economic reasons such a policy may be excellent, the majority of makers have found the proposition impossible, and in some cases the range of models by one firm now available is quite as great as before the war. There are the Wolseley 8, 10, 15 and 20, for instance, and the Sunbeam 8, 12, 16 and 24. Other firms which thought to carry on with a single comparatively powerful model—Crossleys, Armstrong-Siddeleys, Austins, and



We have long been agitating for longer brake levers as an aid to safety and comfort. This Peugeot, however, is above criticism in regard to length of lever.

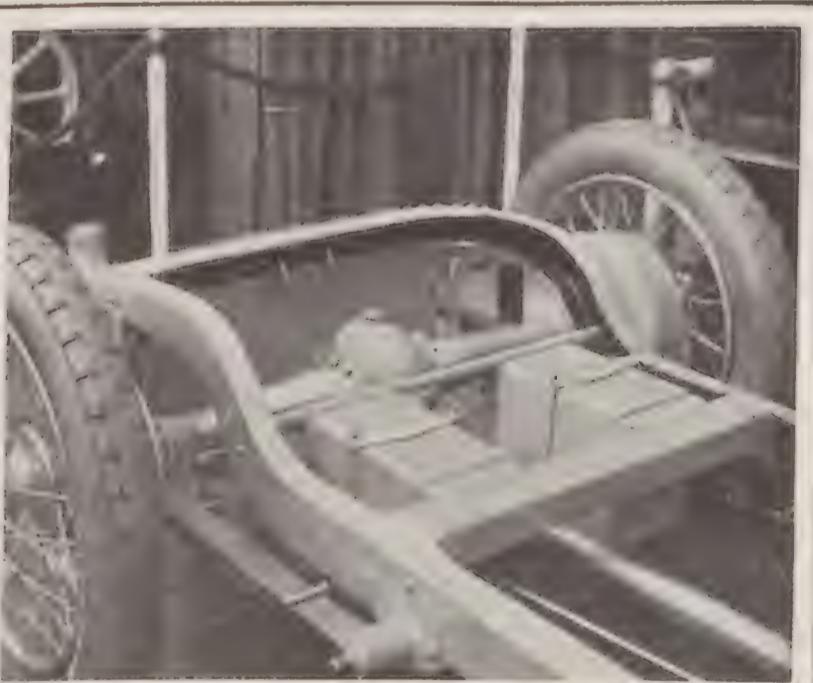
Straker-Squires—have found it necessary to include a chassis of more moderate power; in fact, in only one case that I can recall — Deemsters — has an additional model of greater power been introduced at this show.

I have had it in my mind for many years as a Utopian impossibility that if the bulk of the motor industry of this country could be brought to regard itself as one great firm, and if the units would agree among themselves as to the particular type of car to be turned out by each factory, it would be a step in the right direction. Such a policy would not curtail the motor-owner's range of choice, but it would obviate much of the duplication which so very obviously exists, and it would be the solution of the difficulty so far as colonial and foreign markets are concerned.

This point of the possibility of something in the nature of amalgamation of interests was raised by Sir William Joynson Hicks at the annual dinner of the S.M.M.T., but unless he raised it in view of "information received," I am afraid that it is



Oil gauge on La Buire dash; note also accessible brake adjustment.



Rear of the Peugeot above, showing admirable disposition of battery boxes.

FOUR-WHEEL BRAKING.

still as Utopian, and still as unlikely, as ever.

Personally, I think that a real amalgamation is worthy of consideration ; but, failing that, closer co-operation is imperative in the industry. The idea that I have in mind is something perilously approaching a combine, or "trust," but at least it should be possible for a manufacturer to know approximately what his brothers intend to do in the ensuing year, so that he may avoid adding to the market a chassis of a type of which there is already a glut. Such co-operation would be good from every point of view and dangerous from none. The motorist would benefit by the availability of a good range of cars proportioned in number and variety of makes to the already ascertained demand ; and the manufacturer would at least know where he stood.

The enormous degree of popularity reached by the light car was probably the outstanding feature of the show ; it was, in fact, most noticeable that the crowds which once made inspection of the large cars a difficult matter had transferred their



Grease cups are provided outside the frame on the Enfield-Allday for the lubrication of the universal joints—a much neglected item.

attention to the small ones. And another point upon which there was much speculation before the show was in regard to front wheel braking : would British makers be found to have followed the lead so clearly established in this matter by their Continental rivals ? Front wheel brakes, as matters proved, were conspicuous by their absence, so far as British chassis were concerned, the Sheffield Simplex being the only one so equipped, so far as I could discover. We are always only too eager to blame Britain for backwardness, and doubtless many motorists left the show with the feeling that in regard to braking our manufacturers have once again allowed the Old Country to fall behind.

This is an impression that should not be allowed to go unchallenged and uncorrected. Our manufacturers have plenty of faults, but in this particular instance they are entitled to praise rather than blame. To my certain knowledge more than one maker is carrying out exhaustive experiments with four-wheel braking, and in spite of its admitted advantages, so far as mere rapidity of retardation is con-



A spare-wheel carrier is combined with a luggage grid on the Phœnix.



A healthy cantilever on a Minerva chassis ; showing also large brakedrums.

IS OVER-CAUTION A FAULT?

cerned, they are not yet satisfied that the additional safety provided in this direction is not more than off-set by increased danger in another. A badly-compensated or badly-adjusted front wheel brake is a lethal weapon, and at a time when every effort towards the simplification of the car is both desired and desirable, to add a complication dangerous in inexpert hands would be criminal.

I am not asserting that there is not at present a front wheel brake which is fool-proof and innocuous; I merely say that the majority of British manufacturers must be blamed only for over-caution — which is rather a praiseworthy fault. And, after all, back wheel braking has reached a wonderful pitch of perfection. To name only an assorted few of the makes that jump to my mind, what could be better than the braking of the A.B.C., H.E., Talbot-Darracq and the Rolls—in each case the retarding effect is rapid, smooth and sure, and possesses, moreover, the advantage of four-wheel braking of not throwing the passengers forward in case of sudden application.



The twelve-cylinder Fiat, showing the neat lighting arrangement. The position of the "side" lamps, unfortunately, does not comply with British law.

Progress is all very well in its way, but a point in the development of the car has been reached where the adoption of new features of design, simply because they are new, and before they have been properly tried out, is no longer necessary. The car as it is, is quite good; when some new system of something or other has been tried and approved, by all means let us adopt it—but the British public does not care about the methods of the American manufacturer who once replied to a question of mine as to the road test they gave their chassis:

"Road tests? We don't have any. Our customers are our testers—save us thousands a year!"

I don't like that idea at all, and it is a system that very emphatically must not be applied to details of such vital importance as front wheel brakes. It is sound only in the case of cars of minimum price produced in large quantities—which I imagine would have been my friend the American's excuse. But I repeat, it is a policy which must not be extended to untried and vital innovations.

R. W. B.



The fan is carried on an extension of the dynamo armature shaft on the Unic, with a single-belt drive.



The large Fiat engine is a model of neatness, for all the necessary complication of its twelve cylinders.

SEE SWITZERLAND AND—LIVE.

WINTER SPORTS.

By Captain P. A. Barron.

Further Flagrant Frivolities on Several Sacred Subjects.

FOR many years we have been accustomed to refer to the annual frolics among the snow and ice of Switzerland as "winter sports."

The description is not good. A "sport" has been described as "a method of killing something in a painful manner and in a way that causes physical discomfort to the sportsman."

Those who travel to the Alps in winter rarely kill anything, and many of them are not even crippled. In the restful pursuits of ordinary professional or business life, many recover and are able to hurl themselves down mountain slides on skis or toboggans during the following winter.

Some people have been sent to Switzerland to die, but very few have succeeded. Others have travelled thence to rest, dreaming of the silence of the great white Alps. These, also, have been disappointed. Nobody can rest in Switzerland during the winter. The cold stings visitors into a state of prancing activity; the mountain air is the only stimulant in this post-war world that is not under proof.

Once a doctor who had never visited the Alps advised a middle-aged patient to take a rest cure among the snows in midwinter. The patient was suffering from embonpoint and mental inertia, owing to his employment as a Government official, and his medical adviser imagined that he would find life in "the great white silence" even more restful than in Whitehall.

So he sent him to a fashionable Swiss resort about Christmas time.

Within three days that middle-aged Government official was learning inside and outside edges on the rink before breakfast, was hurling himself down toboggan runs all the morning, practising all the different methods of falling on the ski-ing slopes during the afternoon, and trying new syncopated dance steps during the greater part of the night. He continued to act in this manner for one month, and when he returned he no longer complained of being unable to sleep in his office.

Such cures are quite common, for there is something in the mountain air that seems to change entirely the characters of those who breathe it. Elderly folk who have been brought up most carefully by their offspring often cause the latter grave anxiety in Switzerland, owing to the rejuvenating quality of the air. White-haired old ladies, unless strictly chaperoned by their grand-daughters, go bobsleighing with frisky octogenarians and become hopelessly entangled on the rinks.

The young become very young indeed among the Alps. Sunburned English girls never look so alluring as when, dressed in white jerseys and wearing fur or woollen caps, they skate, hand in hand, with athletic youths, occupying the same toboggans with them, cling in joyous terror to the same bob-sleighs, and join in tailing parties—boisterous and girlsterous sports to be explained later.

Young men in Switzerland soon learn that there are two ways of quarrelling with the Alpine Sportsgirl. They may do so by falling in love with her, or by failing to do so.

The opportunities for romance are unmatched. Couples skate together on vast rinks, walled by great white peaks which, as the sun sets, become tinted to delicate shades of rose that cannot be equalled by the most expensive complexions. Slowly the mountains blush to deeper crimson, and stars prick their way through skies of pansy blue. Stars do not wink in the high Alps. They are *blasé*. They merely beam good-naturedly.

And presently the moon rises. Astronomers have been puzzled lately over the discovery that our silver satellite is quickening her pace. It is because she hastens to peer over the pearly peaks to watch young men and maidens skim over the snows in sleighs, with tinkling bells, as they make their way to dances in the great hotels. The moon, looking down through an atmosphere twenty degrees below zero, knows why cold hands make warm hearts.

Having now reviewed the principal attractions in Switzerland, we may study more minutely the technique of the various pastimes. Thus:

Ski-ing.—Sometimes pronounced "She-ing" and sometimes "Sky-ing" or "Skee-ing," according to the taste and upbringing of the pronouncer. Skis are lengthy pieces of wood which are fixed to the ski-er's feet and make it impossible for him to obtain a foothold on any surface. They are curved upwards in front in order that the two skis may become firmly hooked together, which adds greatly to the sport of onlookers. Ladies are often offended when they enter the shop of a ski-maker and say that they wish for a pair of number fours. It is hard to convince them that a deliberate insult is not intended when they are shown footgear measuring about eight feet in length.

Skis are not fitted rigidly to the feet. The portions into which the boots fit are hinged in order that the wearers may fall forwards without injuring the skis.

The best way to learn ski-ing is to obtain the assistance of two or more friends. A pole and a supply of arnica or Zam-Buk should be obtained, and the party should then proceed to a mountain side that is clothed becomingly with snow. The sport for the friends will then begin. The skis will be fixed to the feet of the novice, and he or she will be told to stand erect upon them.

The friends should assist the sufferer to rise after each attempt. Usually they will find the toe of the left ski firmly embedded under the heel of the right one, and the feet and legs of the wearer must be unwound carefully, in order to avoid injury. Spades are useful for digging out the newcomer to the sport if he takes a header into the snow and leaves only the skis on the surface to show the place of his entombment. St. Bernard dogs were once trained to scratch their way down to ski-ers, but they were overworked,

"SOME" GLOSSARY.

and the breed has become extinct in Switzerland.

The chief object of skis is to prevent the wearers sinking entirely out of sight in the snow. With these long beams on their feet they cannot sink more than ankle deep when they enter the snow head first.

If the ski-er survives his first three or four winters in Switzerland, it often happens that he finds he can stand erect for a few minutes on the beams of wood with which his feet are encumbered. He may then try to walk upon them. This causes much merriment among the natives. The aim of the ski-er is to slide the beams forward alternately, always keeping them parallel. The skis, however, refuse to obey the geometrical law that two parallel lines cannot meet or separate. This may be because the learner has been taught in childhood to turn out his toes, and, consequently, his feet glide off in different directions, so that he performs the acrobatic feat which, in the days before music halls were called theatres of variety, was known as "the splits."

Pictures are seen occasionally of ski-ers leaping through the air with the beams of wood upon their feet. The representations are purely mythical. The only time a ski-er jumps is when he has succeeded in keeping his elongated toes parallel for a sufficient time to enable him to glide over a precipice to merciful oblivion.

Dress for Winter Sports.—Undoubtedly, one of the charms of this delightful land is that its climate justifies a wide variety of costumes. Ladies often favour garments of white wool, as these do not bear evidence of falls in the snow so surely as clothes of dark colours. High white gaiters are often worn. These may be obtained locally for about a guinea a pair, and as the prevailing fashions enable the wearers to show about eighteen-and-sixpenny-worth, they are cheap at the price. Patent leather or glacé kid shoes are rarely worn unless they are hidden within snow-boots. The last-mentioned encumbrances are of cloth, soled with rubber and lined with wool. They are known as gout-ies, as they make the wearer appear to be suffering from that disease which so few of us can now afford. Excellent caps of bunny-sable, mink, or Manx, may be obtained locally.

Toboggan, Use of.—Toboggans are not used in Switzerland. The true toboggan is a flat piece of wood, curved upwards at one end. It was

invented by the ancestors of North American Indians, now dead. The Swiss "toboggan" is a small sledge on runners, and it has been introduced as an apparatus for physical development. The "toboggan" is towed by means of a rope up an excessively steep mountain slope. This heavy toil hardens the muscles of winter sportsmen and sportswomen, and in time the enforced labour gives them great strength. In the early stages they are often so exhausted when they have hauled their heavy loads to the top of a mountain that they are unable to walk back. On these occasions they lie limply on their toboggans and allow themselves to slide down the mountain, as they find this dangerous course preferable to further toil.

Some of the more highly developed athletes will drag their "toboggans" up a mountain five or six times in a day before they are overcome by exhaustion.

"Toboggan runs" might be described by motorists as "test hills," and some are so steep that they can only be climbed by those of exceptionally powerful physique.

Bob-Sleighting.—A bob-sleigh is a much heavier apparatus for physical culture than a "toboggan." It is hauled by a gang who take turns at

the ropes in order to lighten their labour. The vast tonnage of these bobsleighs sometimes renders the employment of six or eight toilers essential.

Tailing.—This sport is an improvement on those already mentioned, as horses do the work. Usually a light sleigh, drawn by two powerful horses, is employed. At the rear of the sleigh a long line of small toboggans is attached. On these toboggans sit the "tailers," and usually to every man there is a damsel or two. The horses are whipped up to fourth speed, and the long line of toboggans bumps after them over the hard beaten snow.

Then the sport begins. The tailers nearest to the sleigh sway their toboggans from side to side by tugging at the towing ropes, and thus they cause the entire line to take a course like that of a serpent trying to avoid pot-holes on an average road. As the line sways from side to side it becomes impossible for those on the toboggans at the rear to remain seated, and they are flung off with great force, thus causing immense merriment.

Skating.—Some people regard skating as the finest of all winter sports, but others fall more frequently. Skating is called "the poetry of motion," but more often it is blank verse. Figure-skating is a pleasing pastime. The aim is to make on the ice certain marks, which are called "threes," "eights," "rockers," "counters" or "brackets." Most of them involve turns and they are designed to show that skaters can fall with equal grace when travelling forward or backward. There are four turns: the "A," "B," "C," and "D—!" The last is the one most commonly mentioned. There are also four edges: outside forward, inside forward, outside back and inside back, and a good skater should be able to make circles on any of them until the rink has as many O's as a post-war budget.

Roller skates should never be used on ice, and learners who desire to be rough-shod, in order that they may obtain a footing on the rinks, should be discouraged.

* * *

On the whole, winter sports in Switzerland are the most healthful yet discovered. Even those people who complain most bitterly of the hardships return year after year.

Sunshine, blue skies, and laughter; pain, joy and tingling health—he who has experienced them can never forget.

Mr. Isaacs does his ski-ing by rule of thumb. He has been reading Capt. Barron's rules for ski-ers all morning, but he is not an apt pupil.

A TRIAL BUT FEW TRIBULATIONS IN TYROL.

A N A M B I T I O U S T R I A L .

By W. Harold Johnson.

A Napier car in full touring trim recently completed an official trial among Alpine and Tyrolean mountain passes with conspicuous success, thus duplicating the performance of another car of the same make in the year before the war.

MANY a modern motor-owner may be heard to express the opinion that he has no interest or concern in the various reliability trials and speed stunts that are continually being reported. But surely his indifference is largely based on failure to appreciate just how much he owes to this habit of participating in reliability trials and engineering all sorts of stunts that many manufacturers have fostered from the very earliest days.

There are all sorts of reliability trials, and they exist in all sizes. A long distance race is a reliability trial, a classic, and perhaps the supreme, example being the recent 200 miles race at Brooklands. Frequently a provincial club organises a reliability trial which consists of the cars having to negotiate atrocious surfaces over very steep gradients and run to schedule time for the whole distance. Our annual London-Land's End, London-Edinburgh and London-Exeter runs are reliability trials, although the testing value of these classic events is now very slight, because, although they once provided a real test for a car, nowadays they do little more than give the drivers an opportunity to display their ability to cover a long distance to a schedule timed in split seconds.

Another class of reliability trial which is not competitive is the R.A.C. officially observed trial. This consists of the observation of the performance of a car or component by a technical representative of the governing body of automobilism in this

country. An R.A.C. trial is not competitive, but the certificate which is given for it contains an absolutely faithful record of the performance of the car, or whatever it may be that has been tested. Full facts and figures are set down, and from this the reader of a certificate may form his own conclusions as to the merits or otherwise of the article.

The first R.A.C. Alpine trial was held in 1913, the car entered being a six-cylinder Napier. The only other R.A.C. Alpine trial began on September 16th last and took just three weeks, the car being again a six-cylinder Napier, although, of course, an entirely different model from that which went "through the mill" in 1913.

As a passenger in the Napier on this last Alpine trial, I feel that a few details of the trip may be interesting to motor-owners, but in view of the delightful accounts of Alpine touring that have recently been presented to

them I propose to say very little about the route itself other than such particulars as are of primary importance, and to concentrate rather on the performance of the car and the conditions under which it ran.

First, then, comes the manner in which the observation was carried out. It will have been gathered from my previous remarks that as the trial was not competitive no penalty ensued from falling behind schedule time, nor from the necessity for any adjustment on the run, but any adjustment that might have been necessary would have been recorded fully on the certificate. The observer sat next to the driver all through the trip, and on his knee he had a notebook in which he recorded everything of interest or significance in connection with the performance of the car. Except at night-time the car was never out of his sight, so that it was impossible for anything to be done to it without his knowledge. If, when we came to put the car away for the night, no lock-up garage was available, the car was enveloped in a huge sheet and tied with string and sealed with the R.A.C. seal.

The aspects of the performance of the car that were to be particularly observed were its fuel consumption, its ability to complete the course with a minimum of adjustments — "adjustments" being understood in the widest possible sense to mean any attention whatever.

The route lay across France to Savoy, incidentally a magnificent touring ground that is insufficiently known to the Britisher



The Napier outside a café in Aix les Bains. The other two passengers are presumed to be using their cameras. One certainly is—hence this photo.

A PROBLEM OF ALTITUDE.

who likes foreign touring, over the Mt. Cenis pass, across the northern plain of Italy, and then into that territory which encompasses the Dolomites and which was, before the war, Austrian, but is now Italian. Toblach, in this region, was our easternmost point.

After Toblach we turned our radiator homewards once more, and, after climbing the Jauffen, negotiated the Stelvio, which used to be regarded as the highest road in Europe. Apparently there is a road in the Caucasus which is higher, but those who ought to know are not quite clear whether this particular road is in Europe or Asia, and so instead of describing the Stelvio as the highest road in Europe I will be content in saying that the height of its summit above sea level is 9,041 feet, a fact and a figure that is at least above the possibility of controversy.

On the ascent of the Stelvio the Napier had to reverse on twenty-five of the forty-six hairpins, but on every occasion it made a clean get-away without difficulty. When within two miles of the top a mis-firing developed accompanied with a popping back in the carburetter, and here again there has been much controversy—what was the actual cause? The mis-firing ceased after about a mile, and the same phenomenon occurred on the Simplon. Everything pointed to the cause being a stratum of atmospheric conditions different from those below and those above, and it is natural to assume that the conditions were a stratum of rarefied air, although if this had been the cause it would, of course, have led to an enriching of the mixture supplied to the engine, whereas on the Simplon our driver had to close the air strangler of his carburetter, thus presumably enriching his mixture still further, in order to keep his engine up to its work. Although the water in the Napier radiator never boiled, this mis-firing on the Stelvio and the Simplon was most probably due to some affection

of the boiling point of the fuel which caused a weakening of the mixture instead of a strengthening.

After the descent of the Stelvio, when free from the restrictive influence of gradient and hairpins, we were bowling merrily along on a level road when our driver suddenly turned round to us in the rear seats and said, "What was that?" Neither of us knew, and we imagined that our driver's impression that something had hit the rear wheel was a mistaken one. The next morning, however, we found our off-side tyre flat and two big nails in it. We had covered at least 50 miles after the driver felt the nails go in—which is really rather a remarkable thing when you think of it. It was our only tyre trouble on the whole trip, and as the roads in many places were anything but good we have here, good readers, an excellent testimonial to the new straight side Dunlop cords with which the Napier was equipped. And so through that flat, uninteresting, discourteous and expensive territory, the southern part of Switzerland, our return to France and home, this completing the first part of a really extraordinary trial.

During the whole trip the Napier had no water added to its radiator and no oil to its engine. When the radiator was filled up, $4\frac{1}{2}$ pints only were required, and the oil consumption

worked out at about 1,350 m.p.g., but most extraordinary of all, the fuel consumption of this 40 h.p. car (38.4 to be exact, the bore and stroke being 102 by 114 mm.), with its full load of four passengers and much luggage (turning the scale at over 46 cwt.), was 18.7 m.p.g. The total distance was 2,118 miles, and except for changing the wheel with the punctured tyre, greasing the clutch spigot, universal joint and water pump once each week, the car received no attention whatever. How is that for evidence in favour of what is called "the luxury car"?

There was a second part of the trial consisting of a speed test on Brooklands track. We returned to the R.A.C. from France at 7.45 p.m. on the evening of Wednesday, October 5th, and the speed trial was held at Brooklands on the morning of Thursday, the 6th. Over the flying half-mile, with the same load that it had taken across the Alps, the Napier achieved the excellent speed of 72.38 m.p.h. The car had undergone no intermediary adjustment or attention other than the replenishment of the oil in the engine and water in the radiator, and I believe that it was an entirely standard vehicle throughout.

Truly a wonderful record of car performance; and, just to emphasise the fact and by way of a final word,

I would like to say that covering the Alps under official R.A.C. observation is a rather different and more strenuous proposition than going over the same route in your own time, under your own conditions, and with nothing but your pleasure at stake.

This region has always been known as the Austrian Tyrol, and consequently it seems reasonable to describe it now as the Italian Tyrol. I say this with full knowledge of the wrath that I incur of a great authority on this part of the world who insists that this part of Central Europe is not Tyrol at all.



The convolutions of the Stelvio, the worst features of which are the numerous hairpin corners to be negotiated.

THE UTILITY OF BENZOLE.

The relative advantages of benzole and petrol are not thoroughly understood by the average car owner, so that the following extracts from a paper read by Captain de Normanville at the Public Works, Roads and Transport Congress recently may prove both useful and interesting.

TH E utility of benzole in the widest interpretation of the phrase is a subject of almost illimitable scope, but the only attempt now to be made is to deal with the utility of benzole from the practical point of view in relation to road transport.

What, then, are the practical advantages of benzole? First of all, it must be understood that, in speaking of benzole for use as motor spirit, I mean only that fuel which conforms to the N.B.A. specification.

I put the practical advantages down as the "big six" in the following order: (a) more power; (b) increased mileage; (c) no pinking; (d) economy of use; (e) "sweeter" running; (f) home produced. The alleged disadvantages are the "small three"—(a) higher freezing point than petrol; (b) lower volatility; (c) stronger solvent than petrol—and the greatest of these is the last.

I will dispose of these alleged disadvantages first. To take the charge of benzole being a stronger solvent than petrol, one must plead guilty. But we are considering the matter from the practical point of view, and can readily dispose of any appearance of heinousness in the charge. If, when you are filling your tank with benzole, you spill some on the paint, you will spoil the gloss or surface finish. But if you make a habit of spilling petrol on the paint, you will undoubtedly spoil the appearance, although not so quickly.

I am not very perturbed about the other "defects." The freezing bogey need not worry us, since the standard specification of the National Benzole Association provides a freezing-point not above 7° F., and as in practice benzole does not freeze until a lower temperature than that assigned to it in the laboratory, ample provision is ensured for the elimination of freezing troubles under all normal weather conditions in this country.

We now come to the question of volatility. We had a few cold spells last year, but I never encountered any

difficulty in starting up from cold. Unfortunately the supply of benzole is a limited quantity, and most motorists have to be content with half and half or even a third of benzole. Under such circumstances, the low volatility bogey recedes further from the realms of practical politics.

We now turn to the more practical topic of the advantages of benzole. In these days of high taxation the power and mileage of the fuel used are vital aspects of practical economy. It always appears amazing to me that so many large users of motor spirits are ignorant of their respective values in these respects. The different brands of petrol vary considerably in their mileage and power attributes—and very mainly on account of the different percentages of benzole in the fuels.

Now I come to a point where it is necessary to go warily. From a simple calculation I am warranted in the statement that in the use of benzole power *or* mileage is increased by roughly 20 per cent. There is adequate technical proof in theory, and everyone knows that the theory is successfully translated into fact, unless, of course, the carburettor is mal-adjusted. But I am disposed to go further than that. I draw your attention to the word "or" in the phrase "power *or* mileage is increased." I want to change that small word to "and"—power *and* mileage are increased.

I will try to make the practical belief coincident with a practical theory. I call up as a reserve force the next advantage of benzole, namely, its non-pinking propensities. Let us take the primary factor of variant quality, assuming equal efficiency elsewhere. I refer to the timing of the spark. An average point for best average results is for the spark to occur on the compression stroke when the piston is about one-eighth of an inch from its extreme upward travel. Assume other things to be equal, and merely transfer the timing of the spark to the dead centre. Though the efficiency of the fuel has

not altered, nor the mechanical efficiency of the unit, the power output immediately falls considerably. Yet in practice there are outside factors, the precise attributes of which are not yet fully known, which necessitate this change of spark timing. We call that attribute "knocking," and we know that so soon as it is manifested it is necessary to retard the spark, and the reduction of power is at once apparent.

Closely allied to this question of non-pinking we have what, for want of a better term, I designate "sweeter" running. This, again, is a very practical utility of benzole. Speaking comparatively with petrol, the benzole explosion has more of the "steady" attribute of steam power. In practice this results in a more even torque, or, in popular parlance, a sweeter running engine. I lean to the opinion that an engine running on benzole is also slightly quieter than on petrol, and it is also probable that engine vibration is reduced by using benzole.

At the present time the retail cost of benzole is about 20 per cent. more than that of petrol, so that with a 20 per cent. better mileage the two fuels are about equal on the mileage basis. But in trials by comparison, figures considerably in excess of the theoretic advantage have been encountered in practice.

To obtain the best results from the use of benzole or benzole mixtures you must use a suitable lubricant. At the least you must use a high-grade mineral base oil, as animal or vegetable compound oils are not suitable unless one is prepared to change to a fresh supply more frequently.

If one endeavours to search the future in regard to benzole output, it is necessary to be circumspect. Taking everything into account one is warranted in saying that there are reasonable possibilities of gradual development in benzole production up to some 50,000,000 or 55,000,000 gallons per annum, though naturally that development will take many years to fructify to the full.

E. DE N.



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THE RUGBY GAME.

By E. H. D. Sewell.

Somewhat daunted by his remarkable success as a prophet on Rugger matters last year, Mr. Sewell refuses to jeopardise his reputation by prophesying again this year. Then he straightway proceeds to do so!

HAVING given last year seven winners out of the ten International matches played (writing in September 1920) in these columns, I am fighting shy of attempting a second effort in that direction. On that occasion my three losers were :

Wales to beat Scotland at Swansea.
Scotland to beat Ireland at Dublin.
France to beat England at Colombes.

The respective scores in these three games were :

Wales 8, Scotland 14.
Scotland 8, Ireland 9.
France 6, England 10.

Ninety per cent. of those who saw Scotland and Wales last year will tell you that Wales would have won but for the encroachments of the crowd on the field of play. Ireland upset my "tip" by one point after Scotland had had their best back, A. T. Sloan, ankle-injured in the first quarter of an hour. One of England's two tries at Colombes was scored from a forward pass. So that, as I shall never get nearer to a highest possible bit of guess-work when writing four months before the first International of the season, I deem it better to leave well alone in that respect.

Even so, it is not a facile job writing of futures without dipping into prophecy. After all, it is merely a matter of opinion, and if I say that France will win the International affair this season, and be the first of the Home Unions —by which I mean, of course, not any overseas Rugger team—to beat England at Twickenham on February 25th, I may not be so very wide of the mark even this time. I do not at all like the look of things (writing on November 10th) at the moment

as regards the presumptive strength of the English XV. for 1922. Age is telling; we have lost F. W. Mellish, a forward who is not replaceable at a moment's notice, and C. N. Lowe dislocated his shoulder badly enough in October to make his reappearance before the second Trial match on December 17th at Bristol most unlikely. The actual rest from weekly Rugger will do a spare frame such as his no harm at all. He is one of the always-fit type. But a dislocated shoulder is, of all the more or less "minor" hurts of the Rugby game, the worst a player can sustain, and it remains to be seen whether he, Eng-

land's greatest "little" wing since the late R. E. Lockwood, can overcome this serious handicap as comfortably as he has many others on the footer field. Fortunately, England has a brace of right wings of high calibre at hand in A. M. Smallwood and K. R. J. Saxon. Smallwood's correct place is on the right wing, though he plays left for England in the presence of Lowe. He has all the necessary dash and more weight than Lowe. Saxon, who learned the game in New Zealand, is probably the fastest wing playing, but he has not the defence of either Lowe or Smallwood. In the centre, should either Hammett or Myers fall below previous form, there is, at all events, one centre at hand in P. K. Albertijn, who is right up to the very best standard, and a bit above it, in modern Rugby. At full back there is a string of excellent eligibles headed by B. S. Cumberlege, who, if he takes it up, will make a good referee in due course. At half, if C. A. Kershaw survives Yankee hospitality (as I write he is fencing with a British team for an international trophy in New York), we have the "old firm" of Davies and Kershaw, R.N., still available, and as reliable, if twelve months older, as ever. It is their last season, alas! Forward, some of our eight of 1920 are also a year older, and one, Mellish, had an arm damaged in New Zealand last June, where he was playing for South Africa without protest, thanks to our Gilbertian international laws of qualification. Under these, there is no reason whatever why W. J. A. Davies should not play for, and captain, Scotland this season. Thus the path of a mere scribbler and prognosticator concerning Rugger events is beset with more difficulties. To fill



R. G. Sharp (Rugby and Oxford University) in the act of drop-kicking.

THE STING'S IN THE TAIL.

Mellish's place there is—nobody. But G. S. Conway (Cambridge) has come on a lot, and H. L. Price (Oxford) is about the best forward in the loose now playing, not excepting W. W. Wakefield, whom some folk at Cambridge do not regard as a forward at all! Consequently, I am not unprepared to see him playing three-quarter against Oxford on December 8th at Twickenham. L. G. Brown is still very good, but no younger for a "forty each way," and the same may be said of R. Edwards, of Newport, whose frequent absences from the Newport team look ominous, though they will help him to be fitter in January and February. The English pack begins to shape like Brown, Conway, Cove-Smith, Wakefield, H. L. Price, Edwards, with the two remaining places to divide up among Voyce, Smart, G. R. Rougier (Harlequins), Blakiston and Gardner. T. Woods, of Pontypool, of last year's English team, has gone to the Northern Union.

Wales ought to be stronger than last year, in spite of Northern Union gold, but "being" and "ought to be" are two very different things. Backs may be discovered, perhaps, in time, but at the moment the likelihood is that Wales, the erstwhile home of high-class backs, will be seen this season making and keeping it forward and letting their backs pick up what crumbs they may from the table of the pack.

In Scotland, with J. A. R. Selby

playing scrum half again, there is some hope for back play of a class necessary to success in modern Rugby. They have lost a promising Glaswegian forward who has gone abroad, and it is likely that the unbeaten Glasgow Academicals side will form the nucleus of the International team or will occupy, at all events, a number of places therein. At the 'Varsities there are at least three Scots who are in the running for a cap in the persons of G. P. S. Macpherson, centre, J. W. Robertson, forward, at Oxford, and D. J. Macmyn, forward, at Cambridge. A. T. Sloan is still playing well, and J. Hume, captain and scrum half, will find a serious rival in Selby for that position. The Oxonian Scot full back, H. H. Forsayth, the probability of whose double honour of last season was forecast in *THE MOTOR-OWNER*, is again available and playing better than ever. A. L. Gracie, centre or wing, is improving with age and experience, but will not find many Scots associates on the three-quarter line particularly able at fitting in with Harlequin methods and *trucs*. E. Mackay, of Glasgow Academicals, will surely play again on the right wing for his country, and with A. T. Sloan on the other wing and Macpherson in the centre with Gracie, we have here a faster third line than any which has represented Scotland since 1914.

In Ireland the game struggles along in spite of everything. B. A. T.

McFarland, who played centre and wing in 1920, but, breaking a leg in November, 1920, was out of all football after that, has got over his damage and has been doing very well at full back. W. D. Doherty is seen, and heard, on many a London ground, and there you have a nucleus for the Irish XV. More than this nobody knows, least of all the Irish selectors!

As I write the rival 'Varsities are in the throes of building. Again it looks like Oxford winning, and very like it indeed if E. Campbell and T. Lawton turn up fresh and fit on December 8th at half for them. Cambridge will have the better scrummaging pack, but Oxford will be just as good as they in the loose, and behind the scrum Oxford seem certain to have the whip hand with a stronger pair at half, a fine full back, one at least robust and strong centre (Price). Unfortunately Jacot, their powerful right wing, broke his collar-bone on November 16th, but they have an excellent wing in I. J. Pitman (Eton) ready to hand. If Oxford place Pitman, Price, David and Macpherson behind Campbell and Lawton they should win comfortably. The form to date (November 17th) shows the Oxford backs to be quite fast and good enough to counteract the almost certain superiority forward of Cambridge. But it will make a lot of difference if Wakefield and Saxon are the Cambridge wings. Then, Oxford should be beaten.



A typical scene at Blackheath, and a view of press photographers in the "front-line trenches."

AND "THAT IS THAT!"

VERSES AND REVESSES.

Our artist has registered a strong protest against the ruthless disclosure of his skeleton in the cupboard and the—in his view—quite unwarranted throwing of dirty water by the poet. All the riches of Croesus would not induce him to illustrate another verse of it.



THIRD (AND FINAL) CRANKING.

I.
I DO not like
This artist's ways.
He will not ill-
ustrate my lays.

II.
*I make of simple things a song,
And then this artist comes along,*

III.
*And says he cannot draw or paint
These simple things.
'Twould vex a saint.*

IV.
*Must I no longer write of cars,
And make instead Odes to the stars?*

V.
*Must I make rhymes
Of "love" and "dove,"
Of "moon" and "June,"
"Above" and "glove"?*

VI.
*Of "roses red,"
Of "teeth like pearls,"
Of "nut-brown hair"
Or "golden curls"?*

VII.
*Or shall I sing
Of "knights of old,"
Of "monarchs grim,"
And "minstrels bold"?*

VIII.
*I wonder if
The man can draw
Such things as these
Without a flaw,*

IX.
*Or if he'll still
Be in a fog.
I'd better make
A catalogue*

X.
*Of things that I
Can write about,
And let him mark
His "can't-do's" out.*

XI.
*Then text and pictures will agree,
If that won't work
I will be free*

XII.
*To get him laid
Upon the shelf
And illustrate
The rhymes myself.*

H. F.



S K I S A N D S E A S O N A B L E S U R V E Y

At a time when Britons throughout these isles have a right to demand a landscape of purity the most immaculate, the weather forecast will most likely be : "Dull ; some showers ; local fog ; slight frost at night." That's our usual Christmas weather ; but

we do sincerely hope. However, they may be fortunate enough to be



The ski is about the most indirigible—if there be such a word—implement of locomotion that we have encountered. Remembering that the word is pronounced “she,” perhaps this is not to be wondered at. One can steer a toboggan or a bob-sleigh, even if only into a snow drift!



E S U R U N D I N G S I N S W I T Z E R L A N D .

l a landscape of
: "Dull; some
as weather; but

we do sincerely hope that this year our gloomy forebodings may be unjustified.
However, they manage things better in Switzerland, and the Briton who is for-
tunate enough to be able to is the first to take advantage of this better management.



Actors and actresses are said to be "resting" when the un-
varnished truth often is that their lives are anything but
restful during the heart-breaking hunt for a job. This young
lady may be said to be "resting" on the same principle;
but she looks anything rather than heart-broken about it.

THE TRAGEDY OF ROTUNDITY.

T H E V E R B “ T O W A L K . ”

By Robert W. Beare.

Will it be deleted from our lexicons in the far distant future?

“ **M**Y dear boy, you are putting on weight at an alarming rate! You are getting positively unwieldy!”

Thus my mother, as I appeared at the door of her boudoir in readiness to escort her to the annual hop of the local riders to hounds, which we dignify with the appellation of “ Hunt Ball.”

The worst of it was that her criticism was true, and I was painfully conscious of the fact. Also, we had had an unusually strenuous run that day, and what with actual physical fatigue and the worry of bathing and changing rapidly for dinner, and then again preparing for this wretched hop, perhaps I was not in the best of tempers.

I replied, therefore, a little impatiently—which was scarcely fair.

“ I dare say that you are tired, Philip, but that scarcely justifies you in speaking disrespectfully to me. You know, also, that I am only warning you for your own good. You are an ‘ Honourable,’ heir to a fine old title, and to very nearly enough money to support it. These things, doubtless, are enough to secure for you a prize in the matrimonial market. But you have reached the age of twenty-seven without making much effort in this direction.”

“ You know quite well, mother, that I refuse to be regarded as a mere ‘ catch ’—I will be loved for myself as well as, more than, for my possessions! That sounds like sloppy sentiment, but I mean it.”

“ Yes, I know, but if you refuse to take reasonable exercise and get so—er, inclined to *l'embonpoint*—”

“ Thank you for your charity, mother ! ”

“ Sarcasm is a very poor form of humour! What I mean is, if you do succeed in securing a desirable wife, it will be in spite of, and not because of, yourself and your personal appearance ! ”

My mother intimated with a gesture that I might sit down to wait for her. I was glad to do so. But I could not

resist a retort: I stayed her as she was passing from the room.

“ That is not very cheerful hearing, mother. But what the dickens can I do? I *won't* use dumb-bells, and such things. I know only too well that I am too fat and getting worse, but I am always riding—horses and motor-bikes—or driving the car! That ought to keep me fit ! ”

“ Horses and motor-bikes—and the car! Nonsense, that is not exercise! Well, I shall not be long. But if you desert all other forms of recreation for motoring, as you seem to be doing,” was her valediction, “ you will lose the use of your legs ! ”

* * *

“ . . . the use of my legs,” I repeated sluggishly, as I sank back in the comfortable chair to await her return. “ Lose the use of my legs—that wouldn’t be nice at all. But every one’s going the same way . . . I wonder how long mother will be . . . Gee, I *do* feel sleepy ! ”

* * *

I confess I must have dozed, for in my recollections there is a distinct hiatus. But I suddenly became fully conscious; conscious also of great clarity of thought and intense realisation of life.

Raising my forehead from the palm of my right hand, I dropped my arm to the arm of my chair, and suddenly found myself gliding noiselessly across the room. In alarm I made the motion to rise from the seat, clutching the arm of the chair as I did so. The movement of the chair first stopped and then reversed, and, alarmed again, I once more attempted to rise. I must have released my grip on the chair-arm, for my *chaise-mobile* came to rest. So far, good, I thought—and then I realised that although I had twice endeavoured to stand up, I remained seated!

“ Paralysed! I have lost the use of my legs ! ” I thought as I plucked aside the soft covering which hid the offending members from view. At first I dreaded to look down upon my

now useless nether limbs; with an effort, however, I lowered my gaze. Clad in satin knee breeches, silk stockings, and soft velvet slippers, they—my legs and feet, that is—looked quite presentable, but, horrors! they were no larger than those of a boy of seven.

The shock was too much for me, I think. I must have fainted. Anyway there is another hiatus.

* * *

Again my consciousness returned to me. This time, however, some hours must have elapsed, for it was broad daylight, while it had been pitch-dark before. Strangely, too, I was no longer in my mother’s boudoir, but out on the spacious central drive of our home park. I was still seated in my chair. Very gingerly I raised my elbows clear of those sensitive arms and looked about me. No person was in sight, so I inspected the chair. It was as wonderfully comfortable as that in which I had dozed—was it overnight, or in another life? What was it all about, anyway?

“ I *will* find out,” I thought impatiently, banging the left chair-arm with my fist to emphasise my determination.

In an instant I was travelling down the drive towards the closed entrance gates which loomed large and every moment larger and more solid, straight in my track. I confusedly wondered where was the steering-wheel, the brakes, as I clutched the arms in momentary panic. Immediately the increase of pace discontinued. The chair came to a standstill, reversed, and then I remembered my previous experience and had the sense to leave go. We stopped, my chair and I, and a warning shout came to my ears. I turned, to find old Somers, our butler for as long as I can remember and a fine specimen of the old crusted family retainer, trundling alongside—in an exactly similar chair to my own!

“ What the devil is the meaning of all this business, Somers?” I exclaimed, seeing hope of enlightenment at last.

A DEFINITION OF REPULSION.

"What business, sir?" he asked. "I know that if you had not stopped just then, you would have had a terrible smash. You weren't using your repulsion, I think, sir? Otherwise, if you will forgive the seeming impertinence, surely you are the best person to explain 'this business'?"

"Repulsion?" I asked, bewildered. "What's that?" And as I spoke I seemed to hear my mother's probable reply:

"What the girl you will want to marry will feel for you if you don't get your weight down!"

"Excuse me, sir, but I don't think you can be quite well. First I find you tearing backwards and forwards, apparently with all your resistances cut out, and then you actually ask me what repulsion is! Can I get you anything?"

"Yes, Somers, you can. I want some enlightenment. Imagine that I don't know anything at all, and tell me all about it from the beginning. First of all, how is it we are both riding about in overgrown bathchairs—with an auto-wheel or something attached, I suppose—instead of walking like ordinary reasonable human beings?"

"I think you must be joking, sir—or have you lost your memory?"

"No, you hyphenated idiot, I've only—only, mark you—lost the use of my legs! Why? How? When—and where?"

"You cannot be serious—you must remember the great calamity which befell the whole human race, or the civilised portion of it, anyway, many years ago?"

"Honestly, I don't," I said. "I think we must both be mad. Is this still Templeton Towers, or is it Hanwell? And why—what caused the calamity?"

"It's Templeton Towers, all right, sir. Doctors said that the reason was that the almost invariable use of wheeled transport—the motor-car as they used to call it—had caused the legs of the human race to become a—I think they said something about a trophy, sir."

"To atrophy, you mean?"

"That was it, sir. And then the startling immodesty of the ladies' clothing at a certain period—the way they showed their—ahem!—legs, if I may say so, sir. That was supposed to have something to do with it!"

"I should have thought that

would have affected male eyesight," I said, frivolously. "But, hang it all, I was all right last night—getting a bit too rotund, had to undo my buttons at feeding-time, and all that sort of thing, you know. And you talk about a 'certain period' and 'years ago'? I'm out of my depth. Tell me how this darn chair works, anyhow."

"Certainly, sir. Well, it is driven by radio-activity—as a matter of fact, the sudden release of huge deposits of radium in Siberia is supposed by some to have upset the electrical balance of the world or something and caused the calamity. So the discovery that made this means of locomotion possible made it necessary also."

"I'll have to think that over; it's a bit involved," I said.

"Yes, sir. Well, as to the control, you need not know anything about the driving mechanism, because that never gets out of order like those old motor-cars used to, and its power is inexhaustible. But to get about slowly—indoors, for instance—you press lightly on the right arm, and you stop by squeezing it. If you continue to squeeze, the chair goes backwards, still slowly."

"I'd noticed that!" I interjected. "But what about the left arm. That's been playing some pretty pranks with me?"

"That works just the same, sir, only you go much faster."

"How about steering, though?" I asked. "Luckily, I've only made the thing go straight so far."

"You simply bear with your body in the direction you want to turn—and, oh, the repulsion! You didn't seem to remember anything about that just now, sir."

"No, nothing. Carry on."

"Well, you see these two little black discs, one at the side of each arm, sir? If you press on those at the same time that you squeeze the arm to slow down, you not only put on the brakes, like, but throw out a repulsive ray that makes it impossible for any other chair to come into contact with yours. We have no collisions nowadays, sir."

"I see; sounds simple. Let's have a try," I said, pressing lightly with my right hand. The little chair moved slowly forward, soundlessly; I squeezed the arm, slowed down and stopped; bore my weight to the right and reversed slowly until I was broadside on across the drive. I found then that by bearing to the left and going slowly forward again I could pull up neatly alongside Somers.

"That's all right, Somers," I said. "All I want's a bit of practice. I'll run on up to the house. Oh, hang it, I had forgotten! How do we go upstairs?"

"Upstairs, sir? We don't have stairs nowadays—there are inclined planes leading from floor to fl—"

* * *

Somebody sneezed. From the tingling of my nostrils I realised that the sneeze was mine.

My mother was standing beside me, holding her vinaigrette—obviously the cause of my nasal distress.

"I thought you were ill, my boy. It was impossible to wake you, and for the past five minutes you have been struggling and throwing your arms and legs about until I was frightened."

"Legs!" I exclaimed. "I thought I had lost the use of 'em. Hurrah, it was only a dream, then! Mother, you were quite right—I must take more exercise. I am going in for football, cricket, tennis, hockey, polo, diabolo, ping-pong, billiards, lacrosse, gymnastics. Come on, mother, I'm going to make a start to-night at the jolly old Hunt Ball with kiss-in-the-ring."

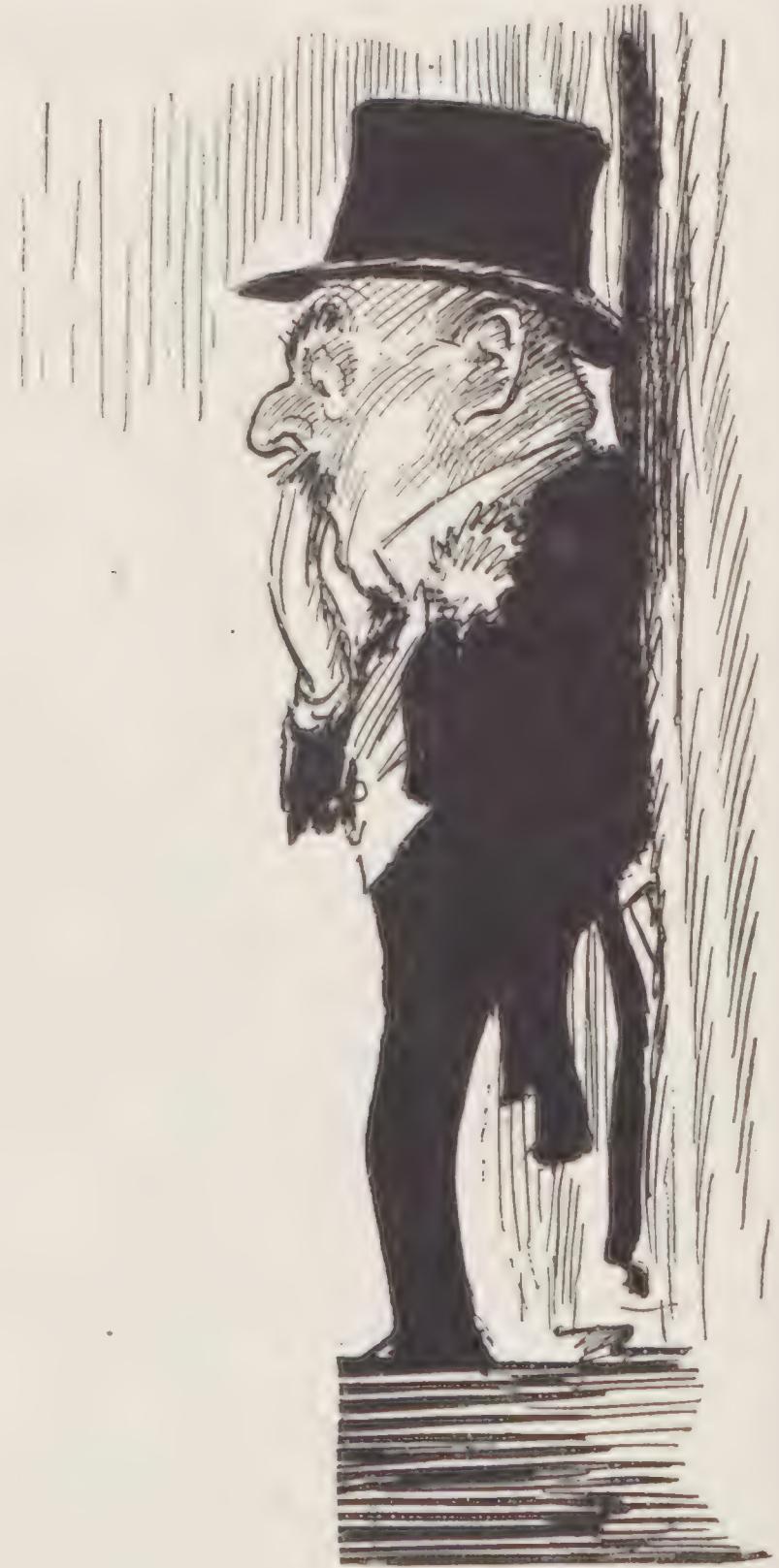


"My dear boy, you are putting on weight at an alarming rate! You are getting positively unwieldy!"

HAVE YOU EVER FORGOTTEN ANYTHING?

Our friend on the right, contrary to his custom, has forgotten his MOTOR-OWNER. This is bad enough, but his wife is also an admirer—which makes matters much worse. He is in a sorry plight—one which could easily be avoided if he had become a subscriber to the magazine. It is no more trouble to fill up one of the coupons printed below and either post it direct to the Publisher of THE MOTOR-OWNER or hand it to a newsagent (according to which coupon is used) than to casually buy the magazine each month at a bookstall. And it is sure—no danger of forgetting, and no danger of being greeted with the dread phrase, " Sold out ! "

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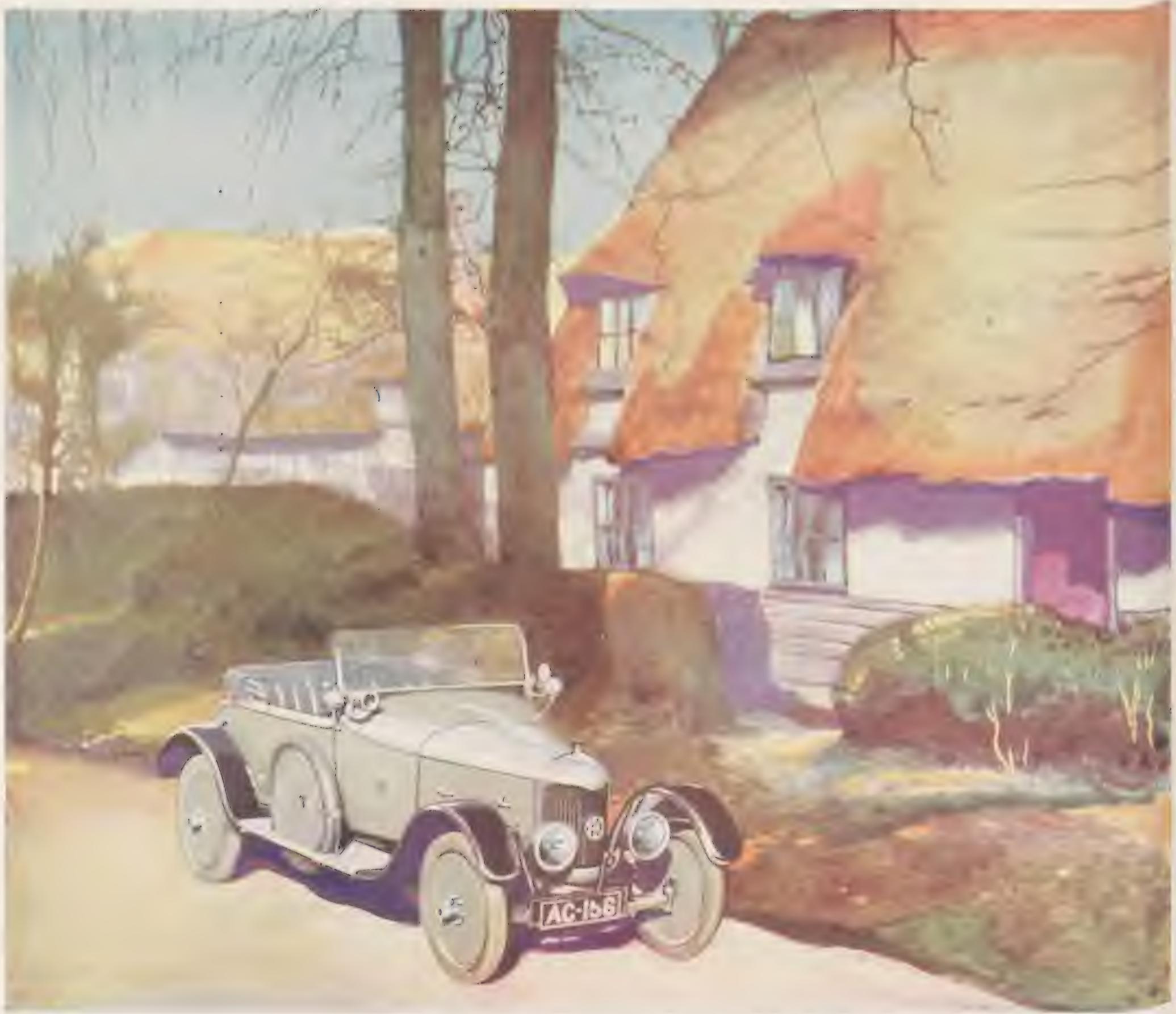
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UNDER THE SURFACE.

THE MOTORING OUTLOOK.

By Captain E. de Normanville.

Why the Revival in Trade was Patchy, and other Show-Week Difficulties Reviewed.

NOW that the great Motor Show is once again an item of history, it is instructive to look back on the event—and try to look forward also. In the first place it is interesting to note that the pre-show optimism of THE MOTOR-OWNER was amply justified. It will be remembered that considerable confidence was expressed in the likelihood of trade revival at the motor exhibition, and in the probability of something approaching a small boom in relation to several of the inexpensive economy type small cars. All this came to pass, and it is very pleasing that it should be so. Even the hopes of the keenest optimists were exceeded, and a very decided turn for the better was scheduled. But something else occurred also which—again to put the policy of this journal on the back—was very forcibly forecast three months before the show.

In anticipating a trade revival very definite views were expressed to the effect that it would be unequally divided in its incidence. It was pointed out in no unmeasured terms that the public when it began to buy again would want the "right car at the right price." It was also very clearly demonstrated that, whilst many firms adequately met this demand, others did not. And it was also stated that, in a land of comparative plenty, there would be famine for those offering the wrong type at the wrong price. I hope you will excuse my indulging in this retrospective I-told-you-so *résumé*. Whether you do or whether you do not, the blunt fact remains that the actual happenings at the Motor Exhibition were most pronouncedly exactly as forecast. Good as the business was, it was none the less "patchy." Assume a car purporting to be of a popular type and priced at £500 ready for the road. Assume further that there are three such manufacturers and that each claims for his product the last word in its classification. And please bear in mind that this is exactly what you do get in

actual practice. Now will you kindly tell me why it is that manufacturer Jones finishes the show with orders for well over a thousand cars, manufacturer Brown with, say, 200, and manufacturer Robinson can scrape up only a meagre ten? You will find, if you talk to the directors of the firm who have collected only ten orders, that they are satisfied in their own minds that their job is a better one than that of the manufacturer who has sold 1,000 cars. They cannot understand why their car does not sell. They can give you ten reasons why their job is the better one. And you would be a fool if you tried to convince them otherwise.

KEENER OUTLOOK WANTED.

If all these various concerns were one-man shows it would be a matter of



The numerous friends of James Inglis Ker will welcome the news that, having finished the work which brought him south two and a half years ago, he is now returning to Scotland to devote himself to the management of the Scottish branch of the Motor Union Insurance Co. Mr. Inglis Ker will also act as Advisory Expert on touring in Caledonia to the Automobile Association.

indifference to the general public what measure of trade they achieved. As a matter of fact, however, they are not; and in many cases considerable sums of public money are involved. In any case, so far as British manufacturers are concerned, there is an element of national interest in the success of any British-produced motor-car. Now it may seem that we are getting on to rather delicate ground. I am quite prepared to admit it and equally prepared to tread the dangerous path. I want to bring it home to those responsible for car production, and to the public who have their money invested in such industry, that times are changing quickly and radically in regard to motoring matters. You may not see it very readily on the surface, but, believe me, it is right there. For many years past a manufacturer with anything of a name could sell the motoring public what he chose to offer them. If he had a cranky idea of building up the engine on the back axle he could still sell in reasonable numbers, perhaps pay 10 per cent. dividend annually to his shareholders, and have a nice, fat salary roll for a few selected people in the organisation. If you spoke to him about trying to develop his job his answer was somewhat as follows: "Why should I? We're getting on very nicely and pay 10 per cent. each year, which is quite as much as they are entitled to expect. Why should I take on extra responsibility to try to pay them more?" I do not suggest that such an attitude was bristling with initiative or exhibiting any characteristics of a superlaudable nature. But this attitude was good enough then, and, as I say, a sufficiency of sales was forthcoming to keep everybody reasonably happy.

A GREAT CHANGE.

Now I make so bold as to state emphatically that these days are very nearly done with. At the recent show the public proved in no very unmistakable manner that they knew what they

FUTURE ARRANGEMENTS.

wanted, what to pay for it, and where to get it. I do not care twopence what class of car it may be. You may take as an example the round-about-£200-worth economy-two-seater, or you may take the £3,000 luxurious saloon limousine. The argument holds good in either case and in intermediate examples. The car must be of the right type in its classification, and the price must be right also. The manufacturer who fails to meet that desideratum will find it harder and harder as time goes on to obtain purchasers for the product. If you got a little band of experts together they would, with almost entire unanimity, draw up a schedule of cars notably failing in this respect, and of those which adequately meet it. In the case of the failures it must surely, therefore, be possible for the people connected with them to recognise the trend of events?

I therefore urge that before it is too late these changing circumstances should be recognised. It is no longer possible to live on the reputation of bygone days. There was one particular chassis in the show which many years ago was extremely popular and in the guise staged constituted, in my opinion, the best medium-priced job exhibited. Yet it could find hardly a purchaser. For years past the manufacturer has lain dormant in regard to development of design. In the past twelve months he woke up with a vengeance and produced a chassis which was unquestionably a leader in European achievement. But I sadly fear it will be too late. He has allowed the marque to become disrespected and cannot suddenly change the public mind by producing the right thing at last. He would have a better chance if he changed its name and his trading name. The chassis to which I refer is a foreign one, but several of our own manufacturers are in the same boat. The British motoring public is now keenly discerning, and a manufacturer can no longer sell them what he thinks they ought to have. He must offer them what they want. And that "want" is now more or less obviously settled in different classifications of cars.

THE NEXT SHOW.

It must be confidently stated that everyone concerned—notably the S.M.M. & T.—have done their utmost to make the dual locality show idea a success. We are confronted, however,

with the blunt fact that from the point of view of the White City minority it is not a success. I do not suggest that anyone is to blame, as it is obviously a case of doing the best with a bad job. I do submit, however, that with two years' experience now available for getting at facts, and those facts being very patent, it is the duty of everyone concerned to make further efforts to improve matters for next year. It is always easier to criticise than to construct. I will therefore submit three suggestions which might conceivably result in improvement. Two of them relate to possible locale, and the other to making it possible for the intending purchaser to study the exhibits in reasonable comfort.

With regard to the locale, then, it is obviously desirable to attain the one-roof ideal. It is equally obvious that the ideal cannot be attained under the existing circumstances. Whatever is done for next year must again be a compromise. The question is, can one arrive at a better compromise than that which we have utilised for the last two years? It will be remembered that the Motor Show used to be held at the Crystal Palace. As a matter of inside history it may also be mentioned that when the suggestion to take Olympia first came up it was met with a storm of protest by many of the leading lights of the industry. Now, would it be a better compromise to transfer the Motor Exhibition next year to the Crystal Palace? The great advantage is, of course, the one-roof ideal, whilst the public could drive up and park their cars there. Against the advantages we have the question of inaccessibility. One would imagine, however, that with the tens of thousands of people who would be known to be going there the railway companies could be prevailed upon to give very special train service. It is probable also that bus companies and charabanc proprietors would also run a regular service of vehicles from given points in London direct to the show, without picking up *en route*. Consequently, although on first sight the suggestion may appear revolutionary, it may be that there is more in the idea than is immediately apparent. It must be remembered that the section of the industry that finds itself at the White City is placed at a serious disadvantage, and everyone concerned must be prepared to sacrifice something to remedy that defect.

Another possible locale to get away from the Olympia and White City ideal would be—the White City. There is ample area there to house the whole of the exhibits under one roof—if someone would get busy and build that roof. Is it economically practical to get such a building prepared on the White City site for next year's Motor Exhibition? The White City itself is sufficiently accessible, and the reason that people do not go there so readily is that those who have time to see only one exhibition naturally give preference to Olympia. But if the heating, ventilating and catering arrangements were adequately reorganised and such a building erected at the White City the people would come there just as readily as to Olympia.

A CHANCE FOR BUYERS.

There are two chief objects in holding a motor exhibition. In the first place it stimulates trade in direct sales of cars and sales to agents. Secondly, it is a valuable species of propaganda to the general public, and a large section of the visitors have no interest to the exhibitor other than this. Except on Armistice Day and the-day-after-the-night-before effect it had on the final Saturday of the show, the general state this year again was one of excessive congestion. The motor agent up from the country is a mainstay of the industry and should have an adequate opportunity of doing business. He had the Thursday before the Show opened to the public for this purpose, but it was not so satisfactory as it might have been—again owing to congestion. The man who wants definitely to buy a car at the exhibition should be given an adequate opportunity of making a judicious selection.

I suggest next year the mornings of, say, Monday, Wednesday, and Friday of show week should be reserved for these two classes. The trader would, of course, go in on his pass and the buying public would go in for a ticket of, say, ten guineas, ten pounds of which would be returnable to him as a *contra* in the account for goods purchased. He would be given some special receipt entitling him to this return. Some such scheme would give the country trader and the actual purchaser an adequate opportunity of transacting their business. The rest of the time would be ample for ordinary propaganda work, the need for which diminishes regularly year by year.

GOODWILL TEMPERED BY DRAUGHTS AND DULLNESS.

CHRISTMAS HOUSE PARTIES.



The Ralph Norwoods have opened up Draughty Corner in the Peak District for the week-end, though, as one of the guests remarked, on feeling an icy draught strike the back of his neck, the lodge seems to be pretty well opened up most of the time. The house, it may be said, is heated by open fires, though there are those who deny it.



There comes a time when certain of the more frolicsome among the older members of a winter house-party feel impelled to renew their youth in a snowball fight. We show a scene from the Willesdens' weekend house party just after Mr. Justice Bramble had landed a neatly placed snowball in the eye of the First Secretary of the Brazilian Legation.



Wishing to confirm the illusion that he is a bit of a sportsman and full of red blood, Ferdinand Fluker announced at breakfast that he was off for a twenty-mile snowshoe tramp. The dear boy couldn't walk five miles if his life depended on it. But fate is against him. "Would you mind," says his hostess, "going just a mile or two farther on your tramp, and bringing back this list of things from the village?"



When Philip Terwilliger arrived at the Beanfeathers' the ground was bare and the weather report was fair and warmer. Consequently he felt perfectly safe in laying stress upon his ability as a skier. Imagine his feelings when he arose next morning and heard some other early riser remark that it was a perfectly ripping day for skiing.



Mrs. John Bittersweet is a hostess of one idea. Having taken some people to Buxton for winter sports, she intends to see that they get them. All day she prowls about the house, searching for delinquents. She has espied Willie Wimbledon just as that unlucky youth was congratulating himself that he had eluded a skating party and was settling down for the first comfortable moment since his arrival.

MAINTAINING A GOOD "AVERAGE."

The Controllability on Corners of the Citroën Car.

IN common with all other motorists, we had heard a lot about the Citroën, and nothing to its discredit. But it so happened that until quite recently we had not had occasion to drive or ride in a specimen of the make. We felt that our education was incomplete in consequence, and Messrs. Gaston kindly fell in with our views.

Behold us one Friday evening, therefore, setting off from Great Portland Street for a run up through Edgware and Elstree, through Buckinghamshire for Oxford and Woodstock. We were told that this was the car with "the starter which never failed," a statement which, so long as we had the car, we found to be literally true. A mere touch on the pedal and the engine sprang to life, even in the first start on a cold morning—which proved, incidentally, not only that the starter was efficient but that the engine was in remarkably good "tune."

The Citroën, we found, is a car to which one becomes thoroughly accustomed almost immediately. The gear change, of which one need not make great use, is as nearly fool-proof as such a "box of tricks" can be, and all the controls seem to be unfailingly at hand (or under foot) when and where one wants them.

For a small and inexpensive car these points—which all make for comfort, or mental ease at least, in driving

—appear to have been given an exceptional amount of attention. So far as physical comfort is concerned also we have none but commendatory comments to make. We found it possible to put up quite a respectable mileage in the course of a day without undue fatigue, and we noted particularly the remarkably untiring capabilities of the engine. A small engine sometimes gives one the impression that it would like a rest; it will run with renewed vigour, for instance, after a luncheon stop. But not so the Citroën—we never completely fathomed its resources; never seemed to reach rock-bottom, so to say. Always there was the impression that something was still in reserve.

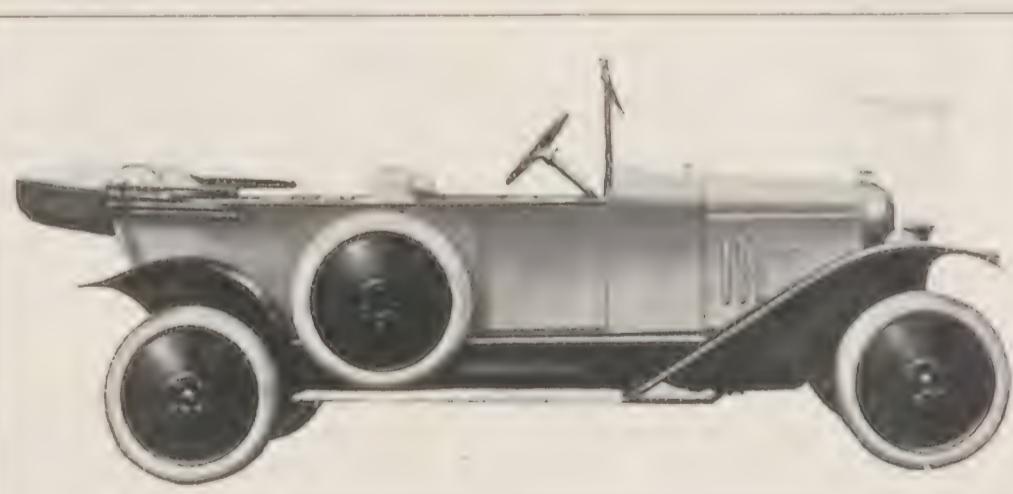
There is naturally a limit in regard to maximum speed—we should put it, for the standard model, in the neighbourhood of 45—but in the matter of average speed over a fairly long run the Citroën is undoubtedly one of the fastest small cars that we have driven. There is somehow a feeling of complete security, of absolute control at the

wheel. The knowledge that the brakes are thoroughly reliable and pleasant in operation helps, of course, but altogether the car runs with so comparatively little effort that often a glance at the speed indicator occasions surprise.

Normally one runs at a steady thirty to thirty-five miles an hour, and the distribution of weight and general design of the car are so good that it is unnecessary to let the speed fall off much on an average corner, so far as the dirigibility of the car itself is concerned. The public safety point of view is another matter, of course; it depends how far the corner is "blind" or not.

Anyway, even though one falls to a mere crawl, one finds the indicator back on the 35 mark almost immediately after the way is clear. Controllability on corners and good acceleration are probably the most important factors in the making of a good average speed, and the Citroën possesses both qualities in high degree.

We did not deliberately test petrol consumption, but, judging from the amount of fuel which we put into the tank and the number of miles run, we fancy it must be remarkably low. Altogether, the Citroën is a car with a distinct appeal—a very capable family car of good appearance, which is, nevertheless, inexpensive both to purchase and to maintain.



The standard four-seater Citroën car, which has now a smaller sister, doubtless of proportionately great capabilities.



An Introduction

IN presenting The ROVER to you, we do so with the same pardonable pride as one speaks of one's ancestors. The ROVER represents the care-free roving spirit of motor-ing, he commands the open road with a welcome extended to all motorists, and to his own family in particular. He has the reliability of many years' experience, and a reputation for strength, personality, character and integrity. Through long years of test and trial the ROVER has proved a faithful friend to many thousands of motorists, who appreciate from past experience that the call of the open road is best answered on a ROVER. May we ask you to follow the movements of "The ROVER" through each succeeding month and season, he will be here, there and everywhere where the joy of life is best realised.

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O U R M A S C O T



The Motor Owner Mascot

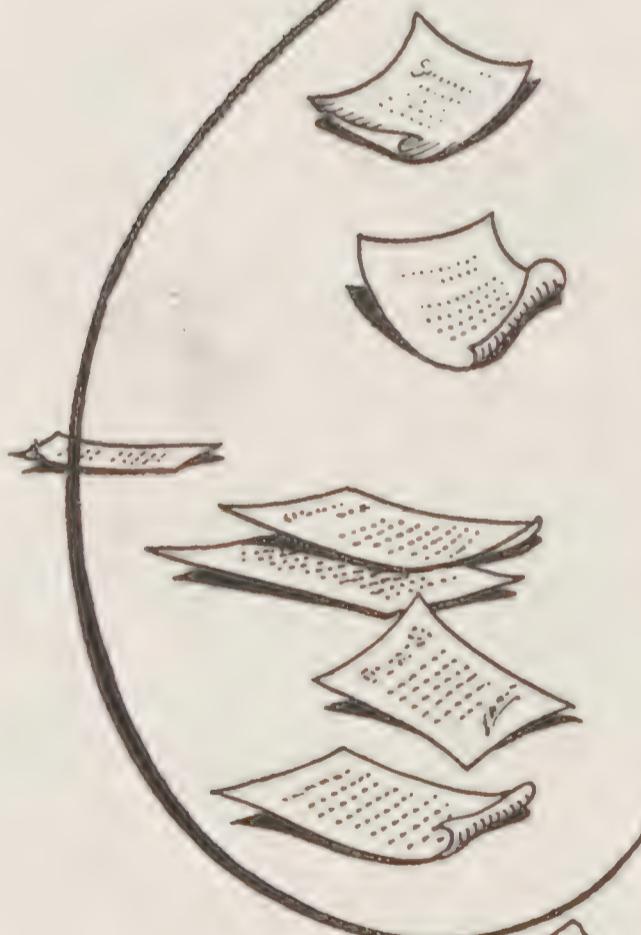
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The AUSTIN

TWELVE & TWENTY

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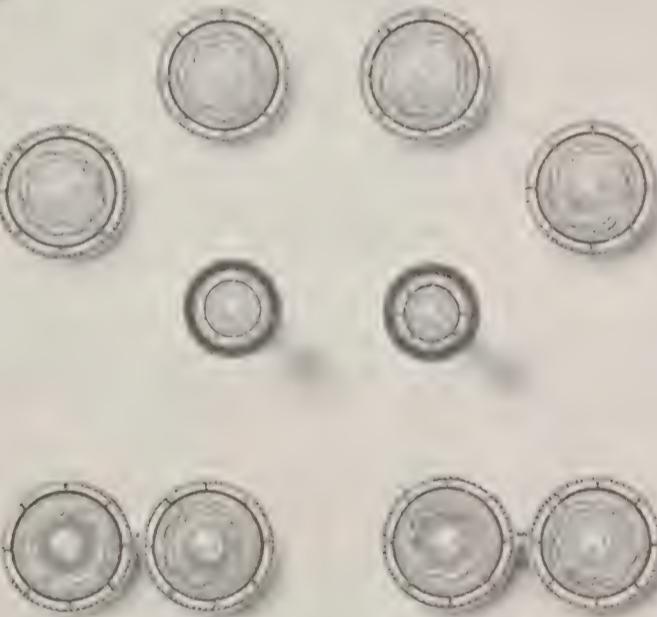


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CONQUERING THE UNCONQUERABLE.

“SOME” HILL CLIMBING TESTS.

A Dodge Car proves the Fallacy of some Popular Beliefs.

THERE is little need to go into details as to the running of the Dodge car, for—judging from the number of vehicles of this make on the road—the majority of motorists know as much about it as we do. At the same time, as a result of a recent trial run on a standard five-seater, we are bound to say that the car at the present price of £465 is a bargain for anyone who requires a robust, powerful and capacious family vehicle but does not wish to sink a large amount of capital in its acquisition. The Dodge with which our experience was gained was remarkably comfortable—its springing was undoubtedly well above the average and easy to control; and so far as finish was concerned the car was well up to the usual American standard. While our test could not take into account the very important matter of durability, the mechanical details of the chassis were so very obviously sound in both design and construction that we should imagine the Dodge would “stand the racket” of constant use at least as well as many a doubly expensive car.

In our every-day test, we found the car to be a good, steady hill-climber, requiring an absolute minimum of use of the gear lever, but we feel the less inclined to detail our own experiences in this respect, perfectly satisfactory as they were, in that before us lie reports from various parts of the country of various Dodge “stunt climbs” in which, mostly in the hands of Mr. Rex G. Mundy, the

car appears to have performed veritable wonders. Nailsworth Ladder, with a maximum gradient of 1 in $2\frac{1}{2}$, has been climbed by Mr. Mundy in a Dodge with a load of eighteen people on board, while a lady, driving another car of the same make, succeeded in taking twelve passengers to the summit.

Not content with this, Mr. Mundy essayed the ascent of Vale Street, Bristol, which, with a reputed gradient of 1 in 2, has always been considered unclimbable. Not only did he prove the fallacy of the supposition, but repeated his performance with two adults in the car and a load of about twenty children festooned on the running boards, bonnet, wings and hood like presents on a Christmas tree.

We have before us also photographs illustrating the victory of the Dodge over Nant Gwrtheyrn Pass, or Screw Hill, Carnarvonshire, which is un-

doubtedly entitled to be named among the worst hills in Great Britain. The hill has a gradient of 1 in 3, and is nearly a mile long—five furlongs, to be exact. We understand that, like Vale Street, Bristol, it had never previously been climbed by any four-wheeled motor vehicle. Mr. Mundy, however, completed the ascent in a trifle under three minutes, or at an average speed of about twenty miles an hour. We do not reproduce the pictures referred to for the simple reason that they do not do justice either to the hill or to the car's performance.

The descent, we gather, is even worse than the ascent—and, as there is only the one road, the car had to go down to the foot before it could commence its climb. So bad did the descent appear that for safety's sake ropes were attached to the car and held by numerous spectators, but it

says much for the brakes as well as the engine of the Dodge to record that the car managed the gradient in both directions without requiring assistance. When the time came to climb the precipitous ascent, the engine made so light of its work that some of the spectators boarded the car and transformed the occasion into something approaching a triumphal progress.

In view of these facts, what need is there for us to speak of our own trivial experience? We will content ourselves, therefore, by saying that the Dodge is in every way a good car, and leave the facts to speak for themselves.



A standard Dodge five-seater, of the same type as that on which Mr. Rex Mundy has successfully tackled a number of hills in various parts of the country which had previously been considered beyond the powers of an ordinary four-wheeled motor-car.

DISCRETION, FROM VARIOUS POINTS OF VIEW.

T H E F L A P P E R A T T H E W H E E L .

Some hints on the management of one's fiancée when she is determined to learn to drive. It is a risky proceeding at best, and insistence upon excessive caution sometimes leads to broken engagements.

THIS is not intended solely for the youthful reader. Certainly, the number of drivers under twenty these days would cause the pioneer motorist's hair to vie with his high chassis in surprise. Mere children go whizzing about in charge of 40 h.p. at an age when the previous generation would have been sampling the dangerous fascinations of a free wheel bicycle. But there is also an increasing number of grown-up children who would do well to go back to school in matters of motoring. I make a present of the cap to those whom it may fit.

Meanwhile, for the sake of argument, let us suppose that the owner of a standard four-seater wishes to instruct his recently acquired flapper fiancée in driving. It is very silly of him to propose doing it on his own car, but then it is all of a piece with the rest of the things Cupid is fooling him into doing. His lady wishes to learn—then she shall learn on the best car at his disposal, even the very latest, guaranteed-for-three-months, competition-priced "—."

Well and good. First of all, let me warn you, Mr. Instructor, against a fairly common error. Do not, I beg of you, wait till you are doing a steady twenty on a flat high road, and then give the wheel over to your pupil, with the sole injunction "Keep straight and don't touch anything."

You probably argue that she won't have to bother with gear changing and accelerating—she will only have to steer straight, and anyone can do that. But can't you remember the feel of that little spoked thing that turns so easily the first time you had it between your hands? Wasn't it as if a powerful fiend were making sport of you, dragging the wheel this way and that, according to his whim—a fiend that leapt at you from every rut and hummock in the road? Well, he's just the same fiend to-day (only worse), though you have grown so used to him that you forget his very existence.

Give your pupil, unprepared, into

his hands and he will bring about the worst peril that can befall a motorist. She will lose her nerve. She will feel the car begin to sway from side to side—she will turn the wheel gently and find that the swaying continues—turn it frantically, and find herself rushing for the hedge. And then you will be lucky if you get the brakes on in time!

In this matter, as in others, it is so much better to begin at the beginning, however dull. Therefore I counsel that, to start with, the function of every pedal and lever on the car be explained to the fair novice, and that she be taught not only *how* it works, but *why*. The importance of this last can be gauged by taking a simple instance—the brake pedal. Seen merely as an unassuming, rubber-covered protuberance, it is hardly worth bothering about. It can just be stamped on whenever circumstances dictate. But when, on jacking up in the garage, that pedal is found to connect with a brake shoe, and the shoe with a rotating wheel, and the sudden application of the one to the other is seen to send a jarring shudder through the car's whole protesting mechanism—why, then it becomes obvious that the brake pedal must be treated with discretion.

So on with other items. You may tell your pupil not to open the throttle wide and leave the air shut off. Then, when she naturally asks "Why not?" do not answer "Because it chokes her," or something equally blood-thirsty and incomprehensible. Just take down the carburettor and demonstrate. It will take time—a whole morning, perhaps—but it is worth while. It is a system that teaches mechanics and driving simultaneously, and that, surely, is the way they should be taught.

When it comes to starting out on the road, the instructor is confronted with new difficulties. It is a well-known fact that people in general (and ex-flappers in particular) do not know what fear means at the wheel, when

they have only just learned to keep it straight. That is why raw drivers are always being fined for speeding. Therefore, your task is to make her realise that there are risks in driving, and at the same time to instil into her the fact that these risks can be met by the exercise of due caution.

All risks being in proportion to the vehicle's speed, it follows that the novice should drive at little more than a walking pace till she has got the "feel" of the car, and till there is not a trace of wobbling about your progress. And stick to a flat road exclusively for the first day or so. Dwellers in Lynton, for instance, had better emigrate, or break off the engagement.

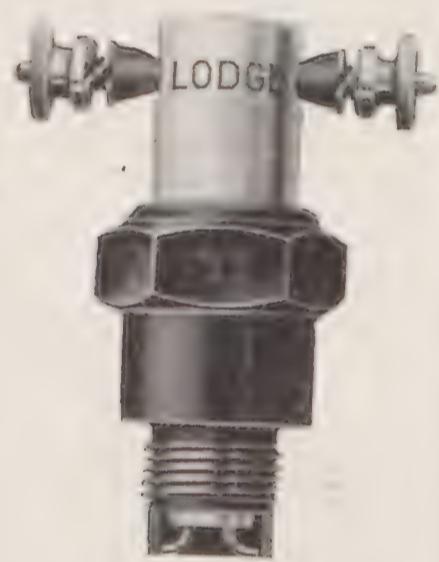
As to gear changing, it is so much a matter of the particular car employed that one hesitates to lay down general instructions. Except that the pupil should be entreated—if necessary, intimidated—into performing the operation slowly and tenderly. I wonder how many gears have been stripped, or at least damaged, by the impatience of the young idea to "get it over"? One has one's foot (or hand) on the accelerator, and from the engine comes an eager roaring that cries out for liberation into speed and a higher gear. It is so easy to forget the clutch on these occasions, or to let it in too soon, with the jerk that marks the bad driver, whatever his tale of years and experience.

In this matter of the clutch, again, a little practice with the engine running free is highly desirable before touching the gear lever. It is safe, I think, to say that 90 per cent. of clutches prove heavier and harder to manipulate than the uninitiated expect. Besides, the pupil may be wearing French heels and pointed toes. I sincerely hope she isn't, but if she is—well, let her practise wagging the clutch about when she is not in a position to do any damage if it jumps away from her dainty pressure. Believe me, this and the other warnings are worth attention, unless your car is already ripe for the scrap heap!

MINOR AIDS TO COMFORT.

MOTORING PROBLEMS SOLVED.

Half-a-dozen Accessories which Remove Half-a-dozen Worries.



Every accessory on this page solves a minor problem. The extra air-valve or mixture regulator which is usually added to a car as an after-thought is a part of the design of the new Zenith carburettor, while the three items of Brooks equipment remove the picnicing difficulty and simplify the bestowal of golf clubs and the ugly spare petrol can. The Lodge plug, designed for use with dual ignition, saves the complication and expense of a double set of plugs, and, finally, the Bleriot spot-light renders easy by night the reading of sign-posts or the finding of a strange house of which the name or number is not visible in the dark.

THREE WHEELERS AT OLYMPIA.

THE MOTOR CYCLE SHOW.

Great progress has been made in the design of motor-cycle engines, and particularly in regard to those machines produced especially for use with a side-car and fairly heavy loads. There has been considerable development also in the three-wheeled type of cycle cars.

THE owner of the lordly limousine is rather inclined to look down upon the humble motor-cyclist, and to ascribe to him in large measure the over-crowding of the main roads which, some say, is ruining motoring as a pastime. But apart from the fact that many people use a motor-bike because they really like it, and not because they cannot afford anything better; apart from the fact, also, that comparative poverty, in any case, is not necessarily a crime, the whole world of automobilism has much for which to thank the motor-cyclist, and much reason to feel towards him more than mere toleration.

Put broadly, the fact is that the more people there are who use motor vehicles of any shape and form, the better will it be for automobilism in general. There is strength in numbers and strength in unity: there are enormous numbers of motor-cyclists throughout the country; only a very small proportion are not members of some club or other. These clubs, as is the case with fully-fledged motor-car

clubs, of course, are all linked up with a central organisation, so that with the R.A.C., the A.A., and the Auto-cycle Union all in practical agreement as to policy, we have both the numbers and the unity necessary to give strength—the strength eventually to secure recognition of our demands.

From an engineering point of view, perhaps the motor-cycle is an even greater marvel than the motor-car itself—a fact which, from all one can learn in advance, will be very evident at the Cycle and Motor-Cycle Show which will have opened at Olympia by the time these lines appear in print. The efficiency of a motor-cycle is based upon the low weight-to-power ratio which we have endeavoured, with less success in the majority of cases, to embody in our cars. The actual machine, apart from engine and fuel, is, of course, of almost insignificant weight, with the result that the engine is able to give a very large proportion of its output to accomplish its real purpose—the transport of the rider—instead of having a considerable percentage absorbed

by the effort required to propel itself. Great strides, it appears, have been made in the design of machines especially for this class of work, the tendency being towards smaller and more efficient engines, with lubrication and gear ratio variation on motor-car lines. In view of the fact that the motor-cycle and side-car is a somewhat unmechanical compromise, its development and relative perfection are more than a little wonderful.

Purely selfish pastimes in which but one person can participate seldom achieve a wide degree of popularity; the aim is rather so to adapt the pastime that it loses its selfishness. Hence, the "combination"; hence also the more recent development of the three-wheeled cycle-car, in regard to which praiseworthy progress appears to have been made.

Taking the Motor-Cycle Show as a whole, we should strongly advise every motorists, even though he be not immediately concerned with the machines, to pay a visit to Olympia. Such a visit may prove profitable; it cannot fail to prove interesting.



The New Hudson, a popular type of three-wheeled cycle car at the Show.



The L.S.D., another machine to be seen at Olympia that has already made good.

*A "TALL STORY" JUSTIFIED.**The Marvels of the New Single-Sleeve Valve Engined Vulcan "Twenty."*

IT was certainly a very tall story they told us. We listened, as we thought, with courteous mien. They talked, as we thought, with an air of self-conviction. Yet it was certainly a very tall story. There must have been just the flicker of the editorial eyelid, or the *soufflon* of a smile playing round the corner of the mouth. Anyhow, it roused them. The tall story was promptly backed by an equally generous wager. They would back the tall story to the tune of laying ten pounds to one about it. Knowing our guilt in reference to that ill-concealed smirk, dignity demanded the acceptance of the bet. And it looked a good thing—a "cert," as they say in "certing" circles.

Well, one lives and learns. To continue in the parlance of betting circles, our cert "came unstuck"—by precisely 2 m.p.h. The tall story—and it certainly was a very tall story—was not only proved true, but had a margin to spare. Our great consolation is that the lesson learned was remarkably cheap at the price. We will gladly pay a pound for any equal experience, any time, any day.

The little preamble above was our introduction to the new 20 h.p. single-sleeve valve Vulcan engine. Representatives of the firm were telling us of its wholly remarkable performance. The tall story which we found beyond our credence (obviously without doubting the actual veracity of the tellers) related to Brockley Hill. Do you know Brockley Hill? If you

do, what would you think of a man who told you that a standard 20 h.p. touring car—completely equipped and with four passengers—could surmount it at 40 m.p.h.? You might credit him with intended veracity, but you would never believe the actual facts to be as represented. You would think there was a mistake somewhere—if you have had much experience of climbing Brockley Hill. That was precisely how we felt about the matter. And that was how the wager came to be made—and this is how we came to lose.

It was a nice fine morning when we came to try this wondrous new Vulcan. The Fates were kind with the weather,

and they were kind in relation to traffic conditions when we came to the hill. It was quite deserted. There were three cars—an ordinary Vulcan, one of our own cars, and (in bated breath) the Marvel. Well, the Marvel—or, in other words, the new single-sleeve-valve engined Vulcan—was in front, and although there were only two of us up, the open road was too great a temptation. Instead of waiting to load up, we put the Editorial foot down on the accelerator pedal. It was our first opportunity for letting her out. And it was one of the biggest surprises that ever happened.

The car simply leapt at the early slopes of the hill. From a steady "thirty," the needle of the speedometer rose up to 58 m.p.h., and over the top of Brockley Hill we had to get very busy with the brakes at exactly 47 m.p.h. It is extraordinary how banal mortal mind can be. Whilst marvelling at this truly wonderful achievement of a standard 20 h.p. touring car, the thought passed through our mind that the experience had "put paid" to our ten to one hopes. It seemed that 47 m.p.h. over the top with two up probably meant the loss of our wager about 40 m.p.h. with four up. The writer flatters himself that no one noticed his choice of companions for the next ascent, but the car turned round and ran down the hill with the four heaviest members of the party! There were also some portmanteaux which no one else had noticed



Neither rough surface and severe gradient nor acute corners has any terrors for the Vulcan "Twenty." This is a view of the car on Porlock Hill.

A REMARKABLE ACHIEVEMENT.

—even if they did rouse qualms of conscience in the writer's mind.

Once again the car was put at the hill. To our immortal credit, we claim that no effort was made to win the wager by foul means! The accelerator was put right down, the spark lever right up, and away we went. Once again this wondrous new model Vulcan leapt at the hill. Once again she roared away—and "ate it." Over the top the speedometer needle pointed to exactly 42 m.p.h.—and the wager was lost and won!

Frankly, this performance is a remarkable achievement. We must emphasise that it was accomplished with a standard 20 h.p. touring car, with full equipment, including two spare wheels, and that the whole climb was made on top gear. The efficiency of this new single-sleeve valve Vulcan engine is astounding. It creates a new Vulcan era in automobile history. Hitherto we have known and much respected the Vulcan as a family man's car—a car of moderate price, very good value, economical in upkeep expense, and of great reliability. But—the manu-

facturers must excuse us—we have never previously associated the name of Vulcan with super-cars, or cars of such abnormally high efficiency.

Well, times change, and we must change with them. This new model is a product quite apart from the company's previous activities. It is a super-touring car of remarkable efficiency and charm, and the whole chassis is in keeping with the engine. We were so vastly intrigued with the new engine that we decided forthwith to accept an invitation to the works and learn more about it. We learnt all right—and "then some," as our American cousins so expressively put it.

We are thoroughly ashamed of ourselves. For once in a way we were almost guilty of road-hogging. We feel that we should motor for a week in sackcloth and ruin our tyres on ashes. Yet in our run up to Southport we never took a single risk. But the average speed! Ye gods and little fishes! The speedometer reading showed not very far short of 250 miles. We left London at mid-day, had lunch and tea *en route*.

lost our way twice, and were in Southport at 8.25. Frankly, we dare not say anything more detailed than that, as, if we gave you the actual average speed for the running time, it would be extremely difficult to justify our invariable claim to safe driving. Yet we do most emphatically make such a claim, and the trip under consideration was no exception to the general rule. It is the wonderful gait of the new Vulcan that makes an exceptionally high average speed possible without "blinding" or taking undue risks.

The name of Vulcan is one of the honoured pioneers of the British motor industry. Our earliest recollections go back (we believe) to the end of last century, and the company was enlarged and re-formed to cope with the greatly increasing trade so far back in motoring history as 1906. But as we have said, its products were of outstanding merit for soundness, reliability and economy. Now, when we re-visit this huge hive of industry, with its acres of magnificent plant, we find a new development in being. We

(Continued on page 39.)



On arrival at the top of Kirkstone Pass the radiator was cool enough to touch with comfort, in spite of the "heavy going" seen in the right-hand picture.

THE PATTERDALE SIDE OF KIRKSTONE PASS



It is in country such as this that the power of the new Vulcan is really given a chance to prove its quality. . . The ample reserve, upon which you so rarely have to



make full demand, may then be loosed. The car leaps up the steepest hills—even the famous Kirkstone, shown in both pictures—and revels in the exercise

OVER THE TOP, BUT NOT THROUGH LUCK.



The top of Kirkstone—an awe-inspiring word in matters motoring. One approaches it with mingled feelings. Will it



conquer, or be conquered? The new single-sleeve valve Vulcan treats it with scant respect—even with contempt.

MAKING A MEAL OF SUTTON BANK.



This is Sutton Bank—yet another awe-inspiring hill. The artist has made it a pleasing picture, with beautiful weather and



reasonable road surfaces. Both were vile when we climbed it on the Vulcan, as the photograph indicates. Yet the car "ate it!"

ONE OF THE BENDS ON PORLOCK.



Porlock—or, rather, a section of this famous West Country hill. It is when you encounter a redoubtable climb of this nature that you can really

appreciate the remarkable power of the new Vulcan single-sleeve valve engine. The reserve upon which you may draw is remarkable.



A PAGE OF EVOLUTION.

(Continued from page 34.)

ask for a bench test of the new 20 h.p. single-sleeve valve engine. We note that the R.A.C. rating is 20 h.p.—and that the power curve on test, at 3,200 r.p.m., shows a shade more than an increase of 300 per cent! And then we must ask you again to remember that this is a standard touring car engine, with standard—or, rather, better than standard—touring-car economy. But the valve port areas of the Howard single-sleeve valve engine, produced and perfected by the Vulcan company, equal the efficiency of a six-valve poppet type—and need only one light operating movement, as different from six tappet mechanisms.

Mr. C. B. Wardman, the managing director of the company, sketched briefly the outline of the evolution of this new engine. It was some two years ago that the inventor first placed his plans before the technical experts at Southport. The design looked good, and with commendable initiative (not, unfortunately, always encountered in this country) the Vulcan company undertook the necessary

experimental work inseparable from any new design. In a few weeks a two-cylinder model was on test. Its performance was so convincing that it was immediately decided to produce a four-cylinder model, and work was commenced on the forerunner of the present engine. Those who went on the first trip recognised that they had evolved something quite out of the ordinary. Then followed the detailed experimental work, long searching tests, and final perfecting before launching the new engine for public approbation. And from the account we have given of the road performance of this (may we so term it?) 20-80 h.p. wonder, we do not entertain any doubt as to the way in which it will be appreciated.

Having emphasised its power output so strongly, we must devote a paragraph to its economy and docility. You must not think that you have got to use all this latent power whether you want to or not. On the contrary, it is as docile as you could possibly wish in traffic or for gentle ambling. But the power is there all the time ready for any call you may make.

And this new engine will then respond in a truly wonderful manner. But when you want her to be docile, she is docility itself.

We spent a pleasant day studying the works equipment and organisation. We then decided to turn south and see what the car could do on Porlock Hill. But we were with north-countrymen, and they suggested Kirkstone and Sutton Bank as being more difficult, as the road conditions would be worse, and they wanted the worst that could be found. They were more than right! We headed for Kirkstone, and the weather and road conditions were—well, leave it at that, as the really adequate description could not be printed! When we took Kirkstone Pass—from the more difficult, or Ambleside side, of course—there were three of us on board, with luggage and full touring equipment, including two spare wheels. In our tank we had perforce to be content with commercial Taxibus fuel, which, good as it may be for its intended usages, is not what one would choose for a stunt hill climb. But, worst of all, we had dangerous patches of fog,



The two sides of the new Vulcan single-sleeve valve engine. Absence of tappet gear allows of particularly clean design, and the greatest possible advantage has been taken of this fact.

FACTS AND FIGURES.

which constituted a serious handicap. Despite all these adverse conditions, the worse side of Kirkstone Pass was climbed on second gear, the lowest speed reading recorded being 16·5 m.p.h., on a corner surfaced with loose rubble. The average speed of the climb worked out at so small a fraction under 20 m.p.h. that we may call it 20 m.p.h. Without fog and with better weather conditions, we have no hesitation in saying that this average could be materially and comfortably improved upon.

The climb from the other side is not so steep of course, and we did this on third speed, and the road conditions were the chief determining factors in speed. At the top of the Pass we made friends with the inn-keeper's daughter, a charming young damsel of but seventeen summers—or thereabouts—but with an astonishing knowledge of motor-cars. She told us all about the way different cars could or could not make the climb, and the speeds of which they were capable. She also told us that the Vulcan was the first she had seen to make a really good climb without overheating. As a matter of fact, this is quite a feature of the new model. If anything, she keeps cooler than need be.

After lunch with good mine host, we turned south for Harrogate, so as to introduce the new Vulcan to the terrors of Sutton Bank. The introduction was only partial, as, while the Bank was in its appointed place, its many terrors vanished into thin air as the Vulcan got into its stride. In Harrogate we took the opportunity of filling up with Shell, and an interested little crowd gathered round the new

model. We were amply assured that under the bad road conditions obtaining we were wasting our time going out to Sutton Bank. But we had come a long way to try conclusions with this famous hill of terror, and were not going to give up without a try. Well, the "try" was easily converted into a goal. Once again we conquered comfortably on second speed, and despite the many limitations imposed by the vile surface, we did the climb from post to post in 1 min. 57 3/5th secs.—which, again, we would wager, can be readily improved upon under more suitable conditions. In this climb, also, we were three up, with luggage and full equipment.

And so to London again—Pepysian-like. One way and another we had done the best part of 1,000 miles on the new single-sleeve valve 20 h.p. Vulcan super-car. And there is no mistaking that it is a super-car. Not only is the engine all that we have described it to be, but the chassis

complements it in every detail. Suspension, braking, comfort, and economy—you have them all, and revel in their delights.

And now just a word about this new valve gear. You are more interested in the results from its use than a long technical description of its operation. But, briefly, there is a single circular sleeve fitting in the top of each cylinder. The piston does not touch it in any way. This sleeve is moved up and down, and is held from rotation by two small ball bearings which it carries running in two vertical slots. Large circumferential ports are cut in each side of the sleeve and serve alternately for the inlet of the gas and for the exhaust. The actual up and down movement of the sleeve is effected by a grooved cam track, in which two small ball bearings, inside the sleeve, engage. It will be gathered, therefore, that the sleeve has two small ball bearings inside and two outside, each pair mounted on a common pin. The whole sleeve weighs but a few ounces, and the remarkable efficiency comes from the large port area which the design renders practicable. And that, briefly outlined, is the story of the new Vulcan single-sleeve valve engined chassis—one of the most notable innovations of automobile history.

After a prolonged tour exceeding 1,000 miles, and including the steepest hills to be found in the British Isles, we are satisfied that the new 20 h.p. Vulcan sleeve-valve car is all—or even more than—the makers claim for it. It is a car that will meet the requirements of the most exacting motoring connoisseurs for power, flexibility, comfort, and economy.



THE VULCAN VALVE

On the right the valve is seen complete, while the interior portion, withdrawn from its sleeve, is shown on the left. Note the comparatively small vertical motion given by the cam-track, and also the relatively large port area.



A CLEAN CAR

besides being a thing of beauty, is a comfort to all who ride in it.

But if the upholstery is dirty, there is nothing more annoying than to find light-coloured garments being soiled by coming into contact with it. Sooner or later the inside upholstery of cars—particularly of open cars—becomes soiled and grubby. It is then high time to send your car to EASTMAN'S, who will treat the entire inside by their wonderful DRY process, and return the car beautifully cleaned in 2-3 days.

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Whether men with the minimum capital of £2,000 should venture, each must decide for himself, after weighing the pros and cons as marshalled in the authentic data obtainable from the undermentioned address. Much will depend on individual temperament.

There can be little doubt, however, that the man of average adaptability and grit with a taste for outdoor pursuits, will find South Africa a country of strong attraction, and farming an undertaking affording many opportunities and much variety of interesting and often profitable occupation.

Fuller particulars about the position and prospects, and about training facilities and guidance for beginners before they invest capital, may be obtained from the Office of the High Commissioner for the Union of South Africa, Trafalgar Square, London, W.C.2.



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NEW OVERHEAD-VALVE ENGINES ARE FITTED AS STANDARD TO ALL SUNBEAM MODELS

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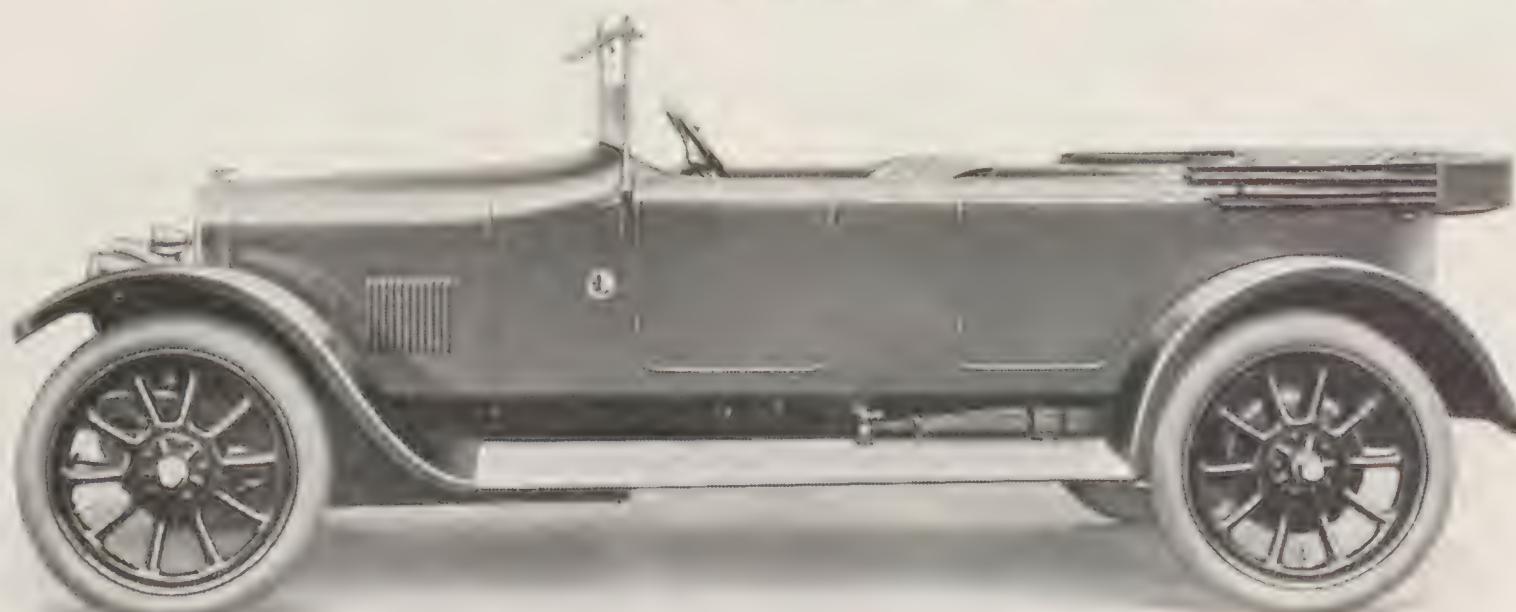
For over ten years the Company has been designing high efficiency overhead-valve engines for racing cars and aircraft, and can claim an unrivalled experience in engines embodying this type of valve operation

They wisely deferred, however, the introduction of an overhead-valve touring car engine until thoroughly convinced, after extensive experiments, that they had produced an engine suitable in all respects for touring work.

They are now able, therefore, to place upon the market overhead-valve engines whose silence and reliability in running are remarkable, and whose workmanship and general merit are equal to that of the well-known side-by-side valve engines hitherto fitted to Sunbeam Cars. They represent, indeed, a distinct advance in all respects on any 3 and 4½-litre touring car engines which have yet appeared.

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14 h.p. 4-cyl. four-seater Model



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at your service.

I BOOK TO ADDISON ROAD.

By Elliot Bailey.

The Story of what befell an Innocent at the Show.

"GWENDOLINE," I said, as I replaced the motor-scooter in the coal hole, "I am going to buy a car."

My wife looked up from the sofa where she sat sewing over a garment which I had already told her should be repaired in the privacy of her own room.

"Are you," she asked, "aware that cars cost money?"

I considered that a totally uncalled-for and foolish question. Of course anyone with any pretension to brains or intelligence knows that cars cost money, and I said so. That is the worst of women. Anything out of the obvious is beyond them.

"Oh, all right," she replied; "don't get huffy. I only wondered, that's all."

"Not only am I quite aware, Gwendoline, that cars cost money, but only yesterday I went to the bank and consulted my bank-book. I find that I have—er—quite a considerable balance."

"Oh, that's what you were doing last night, was it? I saw you doing sums or something on a piece of paper. All right; when do we start to buy our car?"

I confess that I was disappointed at her matter-of-fact way of taking my resolution, which I had not come to without an appreciable amount of mental stress. But women are like that: When you expect them to be thrilled they aren't — just as they have no sense of humour. However, I flatter myself that I did not lose patience.

"To-morrow afternoon, Gwendoline, I have decided that we shall go to —er—yes, to Olympia, and buy our car."

"Nothing doing," said Gwendoline, who, I regret to say, is addicted to such slang expressions.

"And why, pray?"

"I've got the Vicar's sister coming to tea."

I confess to evincing a little pardonable irritation.

"The Vicar's sister!" I said, "the Vicar's sister can surely wait. One does not buy a car every day of one's life. I repeat: the Sicar's vister——"

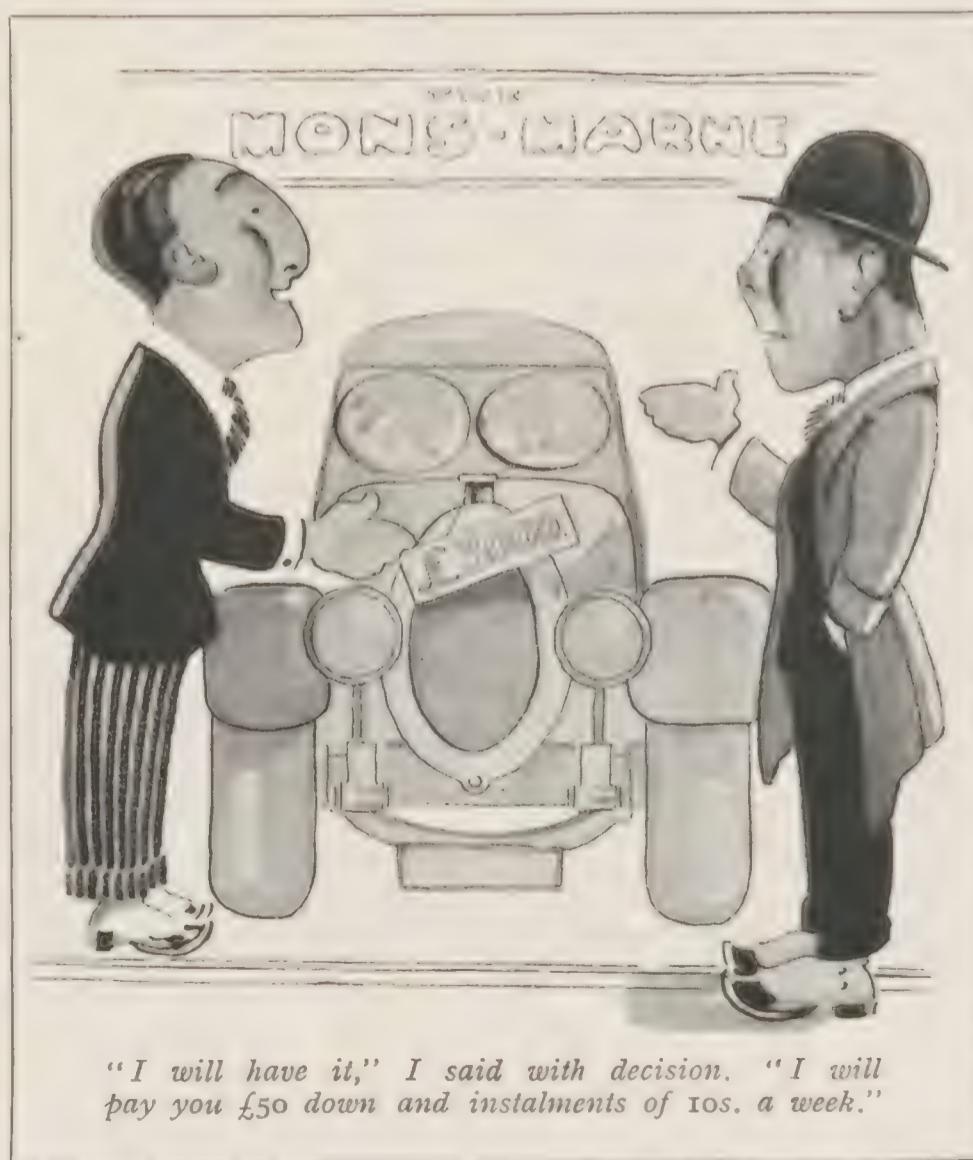
"I shouldn't repeat that if I were you; somehow it doesn't sound quite nice."

But I need not dwell upon this conversation any longer. I regret to say that Gwendoline, though an excellent wife in many respects, too often evinces a vein of flippancy which is more than a little distressing.

Of course we went to Olympia, and the Vicar's sister went to the wall—or, rather, I should say, was asked kindly to come another day. When I put my foot down, I flatter myself that I put it down with no uncertain voice. I took care to point this out to Gwendoline. Her foolish rejoinder about bulls I did not attempt to understand.

I confess that the crowds struggling to gain admittance somewhat surprised me. There seemed to be more people in a position to buy motor-cars than I should have believed. However, we got inside at last after paying five shillings—which I consider to be a totally excessive and unnecessary charge, considering the benefit one confers upon the institution by the purchase of a car.

Afterwards Gwendoline informed me that, had we waited a day, we could have got in for half a crown. I don't know why it is, but this kind of thing always seems to happen to me. However, I have since been able to tell our friends — especially the Vicar's sister—that we took care to go with the *élite* and not with the common herd. That in itself is gratifying.



"I will have it," I said with decision. "I will pay you £50 down and instalments of 10s. a week."

THE EASY PAYMENT PROBLEM.

Having got inside, I found that I had lost Gwendoline in the crowd, or rather that she had lost me—another annoying circumstance, as she was carrying the return half of my ticket to Earl's Court. However, I was equal to the occasion. Pulling out my note-book, I jotted down a memo: "deduct 3d. from next week's housekeeping." Carelessness and inattention on the part of one's wife should not, I think, go unpunished.

To those who do not know it I may say that Olympia is a building of considerable size. On this occasion, it struck me that it was considerably overlighted—a reprehensible form of waste on which I have subsequently indited a pungent letter to the *Times*. That letter, I regret to say, for some reason, has not yet appeared. It was also scandalously overcrowded. Considering that it was a day on which the large entrance fee of five shillings was charged, I think a little more care in the selection and limiting of the audience was called for.

The cars themselves, when one could get near them, were, I admit, neatly and methodically arranged. There were some of contemptible size and cheapness, but these I ignored, making my way to a stand where others more suitable to my purpose were on view. A respectably dressed young man came forward to greet me.

"Good afternoon, sir," he said. "What can I do for you?"

"I suppose," I said, "this is a good car, one that you can recommend?"

He seemed a little surprised, and I considered his tone somewhat haughty.

"Certainly, sir. The Mons-Marne is the best car in the world."

This seemed satisfactory, and I pointed to the largest.

"What," I asked, "is the price of this one?"

"That particular model, sir, is £3,000."

It seemed rather a high price. However, I knew that "cash down" was not invariably insisted on. I produced my pass-book, which I had brought with me, to refresh my memory.

"I will have it," I said with decision. "I will pay you £50 down, and instalments of 10s. a week. That, I presume, will be quite satisfactory."

For a moment he did not speak. My promptness in coming to terms, I think, rather took his breath away. No doubt he expected me to haggle—a thing I abhor.

"That, sir," he said at last, "is a truly wonderful offer."

Then he took a fountain pen out of his pocket, and an old envelope, and sitting down at a table wrote rapidly.

"Wonderful," he murmured. "At 10s. a week you would pay off the instalments in about 115 years."

I confess that I had not, perhaps, worked this out carefully, and that, as he stated it, the period appeared somewhat unduly prolonged, but I have no doubt that I might have made him a satisfactory offer. At that moment, however, a bulbous individual of disgustingly wealthy aspect, came up and was greeted effusively by the young man, who apparently, with lamentable lack of breeding, forgot my existence. I waited a while and then with dignity walked on to another stand. The Mons-Marne car may be all he said about it, but it lost a customer that day. As I have said before, I am not to be trifled with.

At the "Jays-Pond" stand my reception was amazing, incomprehensible, and a blot upon our industrial name. The "Jays-Pond" is slightly less in price than the "Mons-Marne," but, nevertheless, a car in which I would not hesitate to be seen. I made a similar offer for an immediate transaction—this time, however, after

consideration, amending the weekly instalments to 15s. per week.

Was the salesman pleased to take my order? He was not. In fact, he grew purple in the face.

"Get off my stand," he roared, "do you think I come here to waste my time with idiots like you?"

I got off. Except for one thing, I would have defied him, would have refused to be browbeaten in this disgraceful manner. But he was a large man, and I may be described as on the small side. Small but dapper; always dapper.

So I got off.

As for me, I had finished—no more cars for me. I went to find the tea-room.

This proved to be the one bright spot in this otherwise lamentable show. True, one had to pay the large charge of 2s., which, in view of the recent fall in the loaf, might well, I consider, be halved, but having paid it, one was allowed to eat as much as one liked. I took full advantage of this and may say at once that I had an enjoyable and satisfying meal.

In fact my waitress remarked upon it, saying that it was marvellous and she didn't know how I did it, adding the pointless remark that it was a good job all the customers weren't like me, or the firm would start cutting down her wages to make a profit, which seemed to me to have no bearing on the subject.

When I got home, I found Gwendoline waiting for me.

"Hullo, old bean," she exclaimed, "where did you get to?"

"I fancy, Gwendoline," I replied, "that I might ask you the same question."

"Me?" she answered ungrammatically as usual. "Oh, I've been buying a car."

I looked at her in silence, then:

"Please explain," I said coldly.

"Well, after I lost you," she went on, "I ran into Uncle Thomas and—oh! you dear, solemn old onion, he's bought us a car."

I confess that I was gratified. Uncle Thomas had not been too generous in the past. However, I restrained my feelings.

"I am glad," I said, "that Uncle Thomas has had some thought for his relatives at last."

Then, not to be outdone in generosity, I took out my note-book and deleted the entry of 3d. against Gwendoline's next week's house-keeping.



THE GREATEST OF ENGLAND'S WONDERS.

By C. S. Brooke.

The Tortuous and Impressive "Chasm Called Cheddar Cliffs."

IN an old book, quite famous in its day—the edition that I possess is the eighteenth, and was published a hundred years ago all but five—Cheddar is described as “standing on the slope of the Mendip hills, and, consequently, about the level of the moors. “It had formerly,” the description continues, “a considerable market, which has been discontinued for more than a century, but the market-cross, which is of an hexagonal shape, is still standing, and in good preservation. Cheddar has long been famous for its cheese, by some considered equal to any in England, and by many as no way inferior to the celebrated Parmasan. A paper manufactory, and the spinning and knitting of hose, furnish the chief employment of the poorer classes. The church is a large, handsome building, finished with a very fine tower, which rises to the height of one hundred feet, and is embellished with handsome pinnacles. The chasm called Cheddar Cliffs likewise deserves notice, as being one of the most striking objects of its kind in England.”

Now, you may deem that century-old (all but five years) description of Cheddar interesting, for as our old topographer wrote, so, substantially, might a maker of guide-books write to-day. He, one fancies, would have to wipe out the “paper manufactory,” though as to that I cannot say for certain. For I confess, even at the risk of being

charged with a lack of enterprise, that I, on my travels in search of the picturesque, do not deliberately seek manufactories, whether paper, or dolls’ eyes, or jute, or tenpenny nails. The “spinning” touch, too, it also would surely have to go by the board, though not perhaps the “knitting” as well. Tradition is long a-dying in country places, and so is habit. Nevertheless, while it is conceivable that the grandames of Cheddar, and possibly the harassed mothers too, continue to ply the needles, it is questionable whether in Cheddar a single spinning-wheel might be found. Spinning-wheels are become urban, as warming-pans, and unconscionably lazy. They have migrated from their old country homes to Mayfair, Bayswater and South Kensington, and devil a one of ‘em ever goes

round except when Gounod’s *Faust* is billed.

The writer of to-day would, of course, have to amend the approximate date of the passing of the “considerable market,” and certain of the spellings of the old writer would fail to pass muster now, as Cheddar and Parmasan. That would not be altogether to deny the “considerable market,” however—to do so would be idle indeed, seeing that in olden times Cheddar was the chief town, the virtual capital of the Mendips. Nor are the spellings matters of grave concern. The spelling of English was for centuries governed not less by personal predilection than by rules made by schoolmen; and even within the memories of living men, has been subjected to chops and changes. We commonly make s serve, where forty or fifty years ago z was regularly employed, and though we have agreed not to follow the American fashion of dropping the u from such words as honour and vigour, we scorn to spell judgement as J. R. Green spelt it, over and over again, in his famous *History of the English People*—judgement. More lately still, the pundits, you may have noticed, have cast out the e from forego. They claim for their amended spelling that it is a reversion, and for that reason deem themselves virtuous. But would there not be grave astonishment at the Reform Club, much wiping of spectacles at the Athenæum,



The Wind Rock in the Cheddar Gorge, seen, as it should be first seen, from above.

THE CHEESES OF CHEDDAR.

and a positive rumpus at the "Rag," were the *Times* to come out to-morrow morning with its columns sprinkled with *s*'s for esses, with *y*'s doing duty for an infinity of *i*'s, and with *e*'s dropped into places, "promiscuous like," from which, by common consent, they have been ruled out for centuries?

As to Cheddar, it, however the "moors" have been reclaimed, still stands at the foot of Mendip, still sports a hexagonal cross, and still vaunts a church that, though it is dwarfed in Somerset, a county of uncommonly fine churches, would be deemed "a large, handsome building" indeed, in our county or any one of the home counties, not to say, as to the interior—it is as gaudy as the gaudiest of medieval churches ever was—striking anywhere.

Cheddar also remains "famous for its cheese," though it is an open secret that not all the cheeses of the name are pressed at the place of the name, any more than all the cheeses called Cheshire are pressed by the maids of Ridley Hall, and arrive at the Royal Automobile Club and the Engineers *via* Nantwich Fair, and a certain dealer—name of Price—in Whitcomb Street. Cheddar cheese is also pressed at Wedmore, where the great Alfred signed the treaty with Guthrum, the Dane; at Wookey, the place of a deep cave; at Chedzoy, from whose church-tower Monmouth's folk discovered the King's troops; at Weston Zoyland, where the royal cavalry were quartered; at Burrington, the place of the chasm that moved Toplady, caught there by a thunderstorm, to write the immortal *Rock of Ages*; and perhaps at distant Old Chard, where Bloody Jeffreys, warmed to his indecent work, hung twelve of the townsmen on an oak. Nay, more, those cheeses—that even in the seventeenth century, ere men had learned to

differentiate vitamines from proteids, had "grown to be in such high esteem at Court" that they were "all bespoke before they were made"—are, some of them, in these degenerate days, pressed—the indignity of it!—on the other, the less noble, side of the Atlantic.

But for all the trans-Atlantic flattery of Cheddar—it might be rated not less sincere were the imitation more successful, more savoury of cheese than of soap—the greatest asset of the once-proud capital of the royal forest of Mendip is the "chasm called Cheddar Cliffs." That our old topographer left it till the last was not unnatural. In his day the thing was no doubt rated by some good folk as "uncouth," and by others as "horrific"; some it would set whistling, for the reason that Blair's schoolboy whistled—"to bear his courage up"—and others, also for fear, running like mad. But though the children of this generation, when faced with the sublime, acquit themselves as men; though they do not liken Gordale Scar, that chaotic rift neighbouring Malham Cove (also a fine sight) to the "lair where the young lions couch," as did even Wordsworth. Well used, as a Lakelander, to sublimity, a twentieth-century man might think twice before

sending his friend *solus* down the "chasm called Cheddar Cliffs" in the gloom of the sunset hour of a November day. I know several men—one of them is a baronet and reputed a millionaire—whom I would cheerfully send—each of them, not overlooking the plutocrat, alone, of course—on the mile-long journey. That, however, is not so much to say that I am an inordinately vengeful person as to imply that my loathing for rodents is ingrained and imperishable—imperishable on this side of Jordan at any rate. It is also to imply that the great gorge of Cheddar, however it might measure according to European standards, and pigmy as possibly it would prove against American, is quite the biggest thing of its sort in England. "It is impossible," Mr. Edward Hutton, a travelled man, has well said, "to describe the really tremendous effect of this great and enormous cleft in the bare hills. It is something so big that we are surprised to find it in England, where our effects are generally without bigness or grandeur. The mere height of these great rugged cliffs, that rise so sheer on either side of the narrow road that winds down the gorge, is in its effect astonishing, and certainly unique in Southern England. In some cases these cliffs rise sheer from the road to a height of 450 feet, but they might be a thousand, so majestic is their formation, so narrow the cleft by which you creep between them, and so tortuous is the road."

Now here, in Mr. Hutton's description, are high-sounding words, as high-sounding, indeed, as any used by our old topographer. Nevertheless, Mr. Hutton, I venture roundly to declare, is innocent of 'igh falutin'. I am no geologist, though I once knew one. His heart was as big as his head, which was very big, and also, as they say in Chelsea, finely chiselled. Moreover, the head was stuffed with gray matter, not straw.



Scarcely a hairpin, but a beautifully engineered piece of road around the Wind Rock.

THE WAY TO A LIFE-LONG MEMORY.

Every year, for donkey's years, my friend the geologist, who enjoyed a comfortable income out of what the surveyors of taxes term "unearned increment," used to "pike off" (as they have it in our countryside) to the meeting of the British Association, and between whiles he would go to Harrogate for the waters; Smedley's, at Matlock, to be washed; Vevey for skating (at which he was an adept), and ski-ing (at which he wasn't—far from it); while the other between-whiles he occupied in cultivating roses with the assiduity, and, in some cases, the success, of the late Dean Hole. My friend and I, during those "other between-whiles," were pretty constant companions, so that, not unnaturally, I assimilated something of his geological lore. Only enough, however, to satisfy me that the science is laden with deuced hard words, that it carries a fellow on long journeys into a past that is altogether too rude to be discussed, chapter and verse, in drawing-rooms, and that in order to grasp even the simpler tenets of the lore one must be slick as the Rothschilds at thinking in millions—only not the millions of pounds sterling in which those great bankers think, but years.

And so, chiefly, I own, because of the millions—my penny-plain brain ever did stand aghast at tall figures,

and is, I fear, too old to reform—I am not enough of a geologist to be able to say off hand whether the Mendips Range is own brother to the Great Craven Fault, or only first-cousin-once-removed, or whether those two formations are the one a second cousin and the other maiden aunt to the mountain limestone region of Derbyshire, a very different region from the millstone grit of that astonishingly fine county. But this I can tell you, for a certainty, for a take-it-from-me, that the Mendips, the region of Derbyshire that I have particularised, and the Great Craven Fault, which tails a long course from Skipton right up to the Devil's Bridge, below Kirkby Lonsdale, and is never spoken of, written of, or hinted at, or dreamed of, even by the biggest of the professors, without the "Great"—all those formations, I aver, asseverate, and will swear if put to it, are akin to one another in, among a number of respects, the following:—deep holes, severally called swallet-holes, swallow-holes, and pot-holes; vivid green, but nevertheless somewhat dreary tops or uplands; deep rocky gorges, their walls in a number of cases as perpendicular as house walls, and some of them with dry bottoms, as Cheddar, and as the Winnaps, above Castleton in Derbyshire, and others serving as beds for

rivers—Wye and Dove and, at Matlock, Derwent.

There are two caves, Cox's and Gough's, in the jaws of Cheddar's great gorge. The stalactites of the one are finer than those of the other. For beauty and "finish" they outvie the stalactites of any one cave in either Derbyshire or Craven, and Elihu Burritt rated this "water sculpture" of Cox's Cavern as far surpassing, "in delicacy of execution and versatility of genius in works of fancy, anything I saw in the Mammoth Cave of Kentucky." Gough's Cavern scores over its neighbour in the matter of size, however, so that the one may be said to be complementary to the other. Yet great wonders as they be, the "chasm called Chedder Cliffs" is surely a greater wonder still, the greatest wonder of all England's natural wonders. In order to see it aright you must drive down the gorge, not up it, and, above all, do so ere the motor coaches from Bristol and from Weston-super-Mare disgorge their troops, or after they have driven off with them again. It is a somewhat dreary drive from Wells, across the green uplands of Mendip, through Priddy, that village "all forlorn," to the head of the Gorge; but the way of the road down is a way to a memory that may well last a lifetime.



The ancient Cross in the Market Place at Cheddar.

A WORTHY HOME FOR A WORTHY CAR.

THE FINEST SHOWROOMS IN THE WORLD.

A Few Interesting Details of the Latest Wolseley Enterprise.

IN these dark days of depression it is refreshing to find that one great firm of motor manufacturers continues its bold and aggressive policy. Of recent years Wolseley Motors, Limited, have established a unique reputation for enterprise, particularly in the direction of meeting the present-day needs of the motoring public. The three post-war models—the Ten, the Fifteen and the Twenty—which struck out an entirely new line of design, and embodied all the numerous lessons learned from the intensive production of aero engines and other war mechanism, have rapidly become famous throughout the world as the last word in automobile efficiency. These extremely popular models have now been supplemented by the production of a small 7 h.p. car, which also shows a fearless departure from traditional design. Its flat twin water-cooled, two-cylinder engine possesses many novel and striking features, and will put up an astonishing performance for its size, whilst its running cost is so low as to mark it as a real "economy car."

The latest Wolseley enterprise is the opening in Piccadilly of what is probably the finest motor showroom in existence. Two years ago a very valuable site was secured adjoining the Ritz Hotel, and after removing the

buildings then existing, the Wolseley Company determined to erect an edifice which should be in keeping with the size and importance of the firm, and in every way worthy of its name, "Wolseley House." This site at the corner of Piccadilly and Arlington Street, which could almost claim to be at the centre of the civilised world, was one to stimulate any architect to put forth his utmost endeavour, and it must be admitted that Mr. W. Curtis Green has risen fully to the occasion. His original design was exhibited at the Royal Academy in 1920 and excited

much favourable comment in the architectural world.

The building is a striking example of monumental restrained classic treatment, and is in six storeys, the elevation to Piccadilly and Arlington Street being entirely of Portland stone. The ground floor is utilised entirely as a large showroom for Wolseley cars, and the arched treatment combines in the happiest way good architecture with the necessary large expanse of glass required to give an adequate view from the street of the cars on show.

The interior of the showroom is artistic and effective. It has a ceiling of nine domes, carried on Doric columns, and the internal walls are of polished Portland stone, with blue York stone dressings. The floor is of black and white marble. The doors, screens, and wall panels are richly embellished with elaborate designs in Japanese lacquer in red-and-gold and black-and-gold, while the Doric columns are finished in red Japanese lacquer.

The artificial lighting is a striking feature and is both direct and indirect. In the latter case, concealed lights reflect long rays on to the domes, from which they are reflected to the floor, flooding the interior with a soft but full light. The direct lighting is by elaborate bronze pendants.



The interior of the new Wolseley showrooms, next door to the Ritz, in Piccadilly, which are, without question, the finest in the world.

THIS MONTH'S CARTOON.

Mr. H. W. Hillman, Managing Director of De Dion Bouton, Ltd.

SOMETHING of the now, alas, almost unknown kindly relations between squire and tenants wreathes the somewhat prosaic building at No. 10, Great Marlborough Street, London, W.1, for there, the organising and distributing centre of De Dion Bouton, Ltd., is found its commercial exponent, in the person of Mr. Harry William Hillman, managing director of this world-honoured firm.

If the psychologist is correct, there is enviable business ability and insight of the most promising sort behind the clean-cut face that lighted up so responsively when once we had penetrated its owner's natural reticence. And if the professor of mental science is wrong in his assertion, that fact in no way dispels the even more undoubted truth that Mr. H. W. Hillman possesses the sort of skill and acumen that is essential to give motoring the scope it deserves.

Very briefly Mr. Hillman skated over his early life—to his mind it is the car that is the thing. Eighteen years ago he joined De Dions, in London—a far cry in motoring annals, and carrying with it its own tribute to this car's longevity. Three years later came the step up to the sales staff, shortly after which the reconstruction of the firm under the title of De Dion Bouton (1907) Ltd., caused its chiefs to look round for talent. They found it in the subject of our sketch, who planted both of his progressive feet on rung No. 3. From sales manager it was an easy transition the following year to the position of works manager of one of the firm's two London works, and to the directorate of the company. But this period, being that of the now happily concluded sanguinary war, brought with it exceptional responsibilities, as well as possibilities of unknown value.

To the bold all is easy, and the brains of the old-established De Dion Co. at once re-fashioned their organisation to the pressing needs of insatiable Mars. In the Brewery Road branch alone the firm had over 800 employees

engaged in filling almost countless thousands of shells and in supplying myriads of other military requisites.

At the conclusion of war, the problems of peace had to be faced, and in May, 1919, the present company, a private one, was formed. With Mr. Hillman as managing director it acts as the sole concessionnaires for Great Britain and the Colonies, and for the great French house at Puteaux, the Etablissement de Dion-Bouton.

The widening scope of the new

organisation demanded space, and therefore it took over the admirably equipped works of 2½ acres known as "Woodside Works," in the High Road, N. Finchley, which had been specially erected for the De Dion Company (1907).

As we remarked above, Mr. Hillman proved difficult to steer into those personal reminiscences that form so pleasant a background to even the greatest business. For he declared that industry has a romance all its own, seeing that it is originated and conducted by personality, by human initiative, and by a foresight not so far short of that formerly attributed to the gods of the Ancients. Perhaps he is right, for, as he unfolded it, the history of the De Dion is thrilling—the triumph of mind over obstacles whose perversity is now forgotten.

Walk round the two acres of these works, and you will notice the scrupulous care taken over these cars and their English-built coachwork. If you are observant you will discern also that the expression "feed the brute" is a maxim as wholesome for motor employees as it is admirable—from the archbishop's point of view—for husbands. For it is over the happiness of the hands that Mr. Hillman is so insistent. As he says himself—and carries it out, moreover, in practice—"it is only by getting the good will and co-operation of the employees and staff that employers can hope to attain the best results. I am," he added, with that sort of kindly feeling that is mightier than all the Acts of Parliament ever passed, "a firm believer in making all my employees comfortable and happy."

And that this is so Mr. Hillman invites those interested to see for themselves, and with that invitation he extends one to his visitors to take an illuminating walk round the coach-building works, so that they may gain at first hand an insight into the extraordinary variety of craftsmanship and brains that goes to the making of De Dion motor carriages.



Mr. H. W. Hillman.



“De Dions”

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Ansaldo 4-Cylinder
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Treasury Rating, 12.1;
Capacity 1847 c.c.; Over-
head inclined valves; de-
tachable cylinder head.

Zenith carburettor.

Dry single steel disc type
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Unit system gear box, 3
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Speedometer; Clock; Spare
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Detachable Wheels, 765 by
105. Wheelbase, 9 feet.
Track, 4 feet 4 inches.
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THE ELEMENT OF LUCK.

THE "TWO HUNDRED" AND THE FUTURE.

Interest, far from being dead, is awakening in the 200 Miles Light Car Race and all that it represents. Below will be found an interesting résumé of competitors' impressions, together with some useful suggestions, based upon experience, as to the running of future races of similar character.

THE WINNER'S IMPRESSIONS.

In recording one's impressions of a race such as this and the Grand Prix at Le Mans in France, I think it only right that a fitting tribute be paid in the first instance to the designer of the car, because, however much may be said for the driver, upon the car itself rests the ultimate responsibility of the race.

A bad or unreliable car cannot win, however wonderful the driver; and more often than not, in reading the reports of a race, people are apt to overlook the basic fact that by far the major portion of credit is due to the designer.

Given cars such as ours in the 200 miles race, and backed by such an organisation, the part played by the drivers becomes a relatively easy one.

Before the race, we had a fairly shrewd idea that our cars were the fastest, because we were down at the track nearly every day for weeks before, and had never clocked anyone

who had equalled our lap-times. We had qualms, however, on the score of reliability, because, even though no trouble of any kind was experienced at Le Mans over a longer race, the going was much easier for the engine, which, on the track, would have to rev. at over 4,000 r.p.m. for over two and a quarter hours, non-stop—no mean performance!

Here was where the racing experience of the firm told. Mr. Coatalen knew just what parts of the car were likely to give trouble, and each item was dealt with, not a detail being overlooked.

An excellent system of signalling, worked out beforehand, was part of the organisation so ably handled by Mr. A. R. Fenn. Nothing so far as was humanly possible was left to chance, and one had the satisfaction of knowing at twelve o'clock on Saturday morning that the cars were absolutely prepared for their task, that nothing more could be done to them, and that the rest was on the knees of the gods, all

of which helped to engender that feeling of confidence so necessary towards success.

As regards the actual race itself, there is little to record. The winning of any long distance race must always be dependent to a very large extent upon luck. A burst tyre, an oiled plug, and valuable minutes are lost—minutes which take scores of miles to regain, and perhaps are never regained.

I attribute my winning the 200 miles race to two things: first, I had the fastest car, and that by at least two miles an hour; secondly, my luck held good in that I had a non-stop run during the actual race, but punctured a tyre shortly after I had crossed the finishing line. As it was, I only won by five odd seconds, and if this had happened one lap sooner, I should have lost first and second places.

The organisation of the race throughout was wonderful, and left nothing to be desired; there is one point, however, which occurs to me, and that is that



An assorted bunch tackles the hill up to the Members' Bridge; it was noticeable that several competitors had not hit upon the best all-round gear ratio, and slowed down considerably at this point.

INCREASING THE INTEREST.

the start might have been greatly improved upon.

In a track race there are seldom many thrills for the public, so, in their own interests, it is up to the officials to make the most of the existing procedure for running track races, and organise the race in such a way that the public leaves the course after the finish with some incident still fresh in their memory. Such an incident as this is easiest provided by the method of starting the cars, and a flying start, such as that made at Indianapolis in the 500 miles race, has proved itself to be the most satisfactory method, and should present no difficulties at Brooklands.

Beyond this—and this is only a suggestion, not a criticism—I can find no way in which to improve upon the existing system.

H. O. D. SEGRAVE.

SUGGESTIONS AND CRITICISMS.

The arguments as to the value of a high speed race of this description are various, but there is no doubt at all that the utility of such a race is very great, quite irrespective of the publicity gained by those who figure well in the results.

In most cases it is, of course, necessary that a special engine, or special timing be used, in order to bring the performance sufficiently high. Once this is done, however, the more standard parts that can be used the better; firstly from economy, and secondly for the very valuable knowledge gained. Even those who use special cars throughout gain the knowledge of what materials and design will stand up to the work, and should trouble occur on their standard productions, have the reserve of knowledge behind them to get over the difficulties.

With regard to the 200 miles race in particular, although more interest to the riders and mechanics is certainly gained by a large field, which is obtained by running the two races together, there is no doubt that the smaller class lose a lot of interest and publicity owing to their performance being dwarfed by that of the larger class. This can be got over in several ways:—

1. By making the larger cars go a greater distance than the smaller ones, so that the finish should work out at approximately the same time, and giving some award to the winner, irrespective of class. This would, of course, be in effect a form of handicap,

but it could be a fair handicap, as it would be based on the difference in capacity. I would suggest in this case that such award should be a relatively small one. This suggestion, if carried out, might make the race more interesting from a spectators' point of view, whilst not detracting appreciably from the real performance of the cars. Any question of a handicap, however, is extremely difficult, and it is probable that everyone except the winner would be dissatisfied with the result.

Another difficulty is, of course, the fact that the cars have to be started in rows at different times, owing to the impossibility of lining up all the competitors in one line. The objection to this is, of course, that the first man home is not necessarily the winner.

An alternative to this would be having all cars lined up within the pit area, or against the inner edge of the track and start them in pairs or threes at intervals of a few seconds; starting positions in this case, would, of course, have to be decided by ballot.

2. It is my opinion that the only way to run the race so that everyone can be satisfied is by making two entirely separate races, but I think it is essential that they should be run on



A photograph which illustrates the relative positions on the banking naturally taken by cars at different speeds. The cars, from left to right, are : Oliver's Alvis, Major Empson's A. V., & J. S. Wood's Temperino.

THE LUNCHEON INTERVAL.

the same day, the first race at 8.30 a.m.; the winner should finish in $2\frac{1}{2}$ hours, and a further hour should be ample for the race to finish. This would allow the last placed man to average slightly under 60, and would get the track clear by 12.

The race for the large class could be started at 1 p.m., and if of the same distance the first man would be home shortly after 3 p.m., and the whole event would be over at 4.30. The objections which have previously held against this arrangement were, firstly, owing to the time of year the hours of daylight were limited, and, secondly, the difficulty of getting spectators on and off the track. Next year the race is to be held in July, so that objection No. 1 vanishes; also spectators would not mind turning out early in the summer if they were interested in seeing both races. Another advantage which would then be possible to arrange would be a luncheon interval between the two races.

With regard to the second difficulty I would make the following suggestion: Do not use the present main public entrance, but transfer it to the competitors' entrance, where a good number of separate ticket offices could be installed. Once cars had passed the

ticket barriers they could converge quite easily on to the rather narrow road at this point, as the delay is not so much cars following each other as the difficulty at the ticket offices.

A. FRAZER NASH

NOT VERY STRENUOUS!

As regards my impressions during the actual race, with the exception of the rain in the earlier part, both my mechanic and myself thoroughly enjoyed ourselves.

It was a real pleasure to be on such a wonderful little car and to feel the tiny motor getting better and better as it warmed to its work. Every part of the car and every accessory did exactly what was expected of it, and towards the end of the race the car seemed almost to know where to go on the track.

So, as may be imagined, the task of the driver was not a very strenuous one.

I am certainly looking forward to the next long distance race at Brooklands, and the only suggestion I should like to make is to submit to the organisation responsible for running the race that they should seriously consider a flying start similar to the

method adopted at Indianapolis, as I feel certain that this would greatly enhance the spectacular value of the event.

K. LEE GUINNESS.

NOTES ON THE 200 MILES RACE.

In the first place, both the preparation and the actual race were most enjoyable and interesting to me, an amateur at the game, and I can honestly say that it is one of the best of the many things I have tried. It beats flying hollow for interest, and is not nearly so expensive. The one thing it teaches above all else is patience—that is, if you are determined on results.

Before the race everybody took all available opportunities to impress upon me the great danger of 50 cars on Brooklands all at the same time, and foretold the shedding of much gore, not to mention the shedding of the most obstructive parts of many cars. So I started with some apprehension as to the task before me, but fortified, nevertheless, by the fact that I had a system of signals for use between my mechanic and myself and the other competitors that in practice had given excellent results.



Captain Malcolm Campbell overhauls the Lagonda driven by Major Oates (No. 24), and is about to pass Oliver on the Alvis. Campbell took almost exactly the same position on the banking in each of the 73 laps.

POINTS OF MECHANICAL INTEREST.

As soon as the race had run two laps it was evident that the danger due to the numbers on the track was the least of all. As for the shedding of parts, this also was unimportant, for so far as I was concerned, the only thing I spotted during the whole race was a sparking plug that made its appearance on the middle of my path on the track during the third lap, and it is interesting to note that it remained there throughout the race.

The greatest praise should be given to the little A.B.C. for the wonderful speed and reliability of its performance, and in fairness to its manufacturers, Messrs. The A.B.C. Motors, Ltd., the following facts should be stated.

The chassis was purchased from the makers by George England, Ltd., in the ordinary course of business, and was in no way special—in fact, the chassis was delivered to my firm within 30 minutes of the order having been given to the makers. A body was then fitted to my design, and the car was used for ordinary touring for some time, and I took part in the Nailsworth Ladder Hill Climb on this car, making no fewer than three ascents. A tour in Devonshire followed, and then a start was made on serious tuning for the race.

A new body was substituted, and all unnecessary fittings removed. The back axle ratio was raised from 4·51—1 to 3·21—1, two carburetters were fitted in place of one, Specialloid pistons replaced the standard cast-iron ones, battery ignition was used instead of the magneto, and Rudge-Whitworth wheels shod with Palmer tyres in place of the pressed steel wheels.

Otherwise, the design and parts remained unchanged and were not cut down or lightened in any way.

The makers of the car had nothing whatever to do with the car from the day it left their works until after the race, and so they had no chance to give advice or let their own experts give a hand in the preparation of the car.

It was a wise policy on their part, as the failure of my amateur efforts could not be laid at their door had it occurred, and success would be all the more remarkable under these conditions.

The car had the smallest engine in the large class, being only

1,198 c.c. against the maximum of 1,500 c.c., and was the only car in its class that was air-cooled. Yet it averaged over 70 m.p.h. for the whole distance, and for the last six laps averaged over 81·5 m.p.h.

May I add my thanks to all the officials for their courtesy and help at all times.

E. C. GORDON ENGLAND.

PEOPLE ON THE TRACK.

I do not think that many criticisms are necessary in either the organisation or the actual race itself. But I must say that there was one thing that appeared to me to be rather irregular, and that was the fact that people were allowed to cross the track whilst the race was actually in progress.

The race itself, in my opinion, was a great success, and I am very hopeful of a recurrence next year.

I would like to say that all commendation is due to the Junior Car Club for the ingenuity displayed, and for the way in which the whole thing was carried through, the organisation being so perfect as to practically obviate all risk of accident, and I was thoroughly satisfied with it in all respects.

W. G. BROWNSORT.

BUGATTI FACTS.

As there appears to be "a certain liveliness" of interest in the two standard 69 by 100 mm. four-cylindered sixteen-valved 1921 Bugatti chassis run in the 200 miles race of the Junior Car Club, may we be permitted to state a few facts?

The chassis run were standard sports model chassis, any number of which we shall be pleased to sell. The two cars run arrived in London on the Tuesday before the race, and their drivers first saw Brooklands track on Thursday, October 27th.

Despite the quite respectable pace at which these two cars lapped for 2½ hours, eventually gaining fourth and sixth places among those completing the course, they averaged 35 miles per gallon of petrol over the whole distance run—76 laps in one case and 77 in the other, as a matter of fact.

ED. G. LEFRÈRE

(for Charles Jarrott and Letts, Ltd.)

THE VALUE TO THE PUBLIC.

I consider the 200 miles race will do more to popularise the light car, and prove to the prospective light car owner the extraordinary efficiency of the 1,100 c.c. and also the 1,500 c.c. car, than any other light car event which has ever been held.

Few people realised it was possible for small cars to maintain such high speeds over a distance of 200 miles, and in my opinion every credit is due not only to the winner but also to the manufacturers of every car which finished the course.

The public, I am afraid, do not appreciate the fact that by organising events of this nature the best brains in the industry are spurred on to produce greater efficiency, and it is the public who secure the benefit of the experimental work which is carried out at big expense by manufacturers. The maker learns something more about his own production and incorporates the result of his experience in future models.

In mentioning the 200 miles race, one cannot overlook the fact that the Junior Car Club are deserving of more recognition than they have had, for their enterprise in organising, and successfully running, such an important international race.

FRANK H. BALE.



Captain Frazer Nash, the winner of the smaller event, had every reason to look pleased, but in any case it takes a good deal to upset him.

MY LOG BOOK.

By *Hermes*.*A Further List of Important Price Reductions.*

THE cheery optimism that en-haloed the recent Olympia-cum-White City Motor Show, and the fair promise of the approaching season, were not gained without the expenditure of much fore-thought, unceasing effort, and the sort of optimism that denies "nay" its dictionary value. Lesser things may have "growed," as coal-black Topsy put it, but the remarkable industry that gives THE MOTOR-OWNER its *raison d'être* is essentially due to the energy of its sponsors.

Behind the scenes a great deal happens that is only known to the public by side-lights from pages such as mine. A veritable budget lies at my elbow as I write—from the institutions that direct, organise and govern, to the manufacturer, ever striving to better his best.

Indeed, I think the motorist seldom gives due credit to those who labour on his behalf; yet scan this page to see a tithe of what you owe to those who make motoring easy; a safe, desirable pastime for men and women.

The R.A.C., for instance, has carried out during the past year hundreds of tests of cars and lorries and accessories, putting on indisputable record figures relating to fuel and oil-mileage, speed-qualities and so on. In particular, the club's tests of dazzle-avoiding lamps are commendable, and should be studied by motorists, owing to the possibility of car users being held responsible for danger arising from head-light glare.

Even public commons have their regulations, of which motorists have unwittingly run foul, a case in point being Banstead and Burgh Heaths, on which it appears to be an offence to drive or stand a car or motor-cycle. The A.A. has put the motorists' case before the conservators, with the happy result that if the vehicle does no harm to the turf, and the keeper's suggestions as to a suitable resting place are acted upon, tourists will not otherwise be interfered with.

The A.A. has sent me a copy of an

important letter from the chief constable of Herts to the county magistrates, in which this official urges upon motorists the need for care when entering a main road, or when passing and overtaking other vehicles, and when children or cattle are on the thoroughfare. From this letter, the Herts police would appear to be very considerate and are not in favour of ten-mile limits, and therefore expect motorists to drive in a similar spirit.

I am also informed by the A.A. that a very large number of accidents were caused last season by passengers in chars-à-bancs throwing coins, etc., to children. To prevent further trouble the Automobile Association has prepared plates for attachment to char-à-bancs seats, carrying warnings which should restrain the public from this dangerous practice.

Examining the prices of the 1922 Crossleys I notice substantial and welcome reductions in the case of the 19·6 h.p. model. The chassis, with full equipment, for example, now costs £670, as against the former £835. On the five-seater tourer £190 is saved, while the two-seated sports model shows a drop of £180 on the old price

of £1,100. In the case of the four-seated sporting Crossley the saving in price is greater still—£205—since the former figure, £1,150, is now displaced in favour of £945. Likewise the seven-seated landauette now costs £180 less, while the five-seater saloon Crossley is listed at £1,195, as against £1,425, a saving of £230.

Next season's R.F.C. Crossley, of 25/30 h.p., costs £800 as a chassis or £1,050 as a "Manchester" five-seated tourer, and £1,325 as a four-seated "London" coupé. The seven-seated R.F.C. Crossley "Chester" landauette is listed at £1,350, and the "Buxton" saloon model, also seating seven, at £1,425.

Should you own a Swift you will find that its makers, by virtue of their new service system, can supply upon demand from their special Coventry stores, spare parts for the whole of their models.

To have "the defect of its virtues" is a saying I have found attributed to the Rolls-Royce by people who are impressed by its luxuriousness. Yet the Rolls possesses speed qualities greater than this country gives scope to, as is evidenced by its performance at the recent Côte du Phare hill climb at Biarritz. The course, about 550 yards in length, has three sharp turnings, and starts on a 6 per cent. gradient. The Rolls covered the distance in 25 $\frac{1}{2}$ seconds, which is equivalent to an average of 63 $\frac{1}{2}$ m.p.h., against a number of formidable competitors.

Interesting changes in the Rolls-Royce personnel have recently occurred, Mr. Albert W. Claremont, of Vernon House, Bloomsbury, W.C., having accepted a seat on the directorate, and Mr. H. Royce, for twenty years with Wolseley Motors, having taken up a position at the Rolls-Royce Derby works as buyer.

Information has been given to me that the Brooklands Racing Track will be closed for repairs during the month of December, 1921. Should it be necessary to extend the period for



The latest model of the Leverlite torch, or inexhaustible electric hand-lamp, marketed by the Atlas Safety Petrol Filler Co.

THE SHOW'S BEST EXHIBIT.

which the track is closed, due notice will be given.

The extraordinary popularity of certain accessories is shown by the Wefco people's experience, since no fewer than 52,000 of their covers have been supplied to Morris Motors alone, while 50,000 more are on order.

Any doubt as to the efficiency of the Marles steering gear should be dispelled by the way in which it has contributed to the success of large and small racing cars. A 1½-litre Aston-Martin thus fitted, for example, recently broke all records at Brooklands in that class, covering a hundred miles at a speed of 86·21 m.p.h. and being described as a pleasure to handle.

I am asked to correct the following regrettable error: Owing to similarity of name, the "Ashton-Evans" car appearing under the heading "The Cult of the Two-Seater" in the November issue, was incorrectly described as the "Aston-Martin," and in the report of the 200 Miles Light Car Race the "Aston-Martin" was wrongly named the "Ashton-Martin."

In response to enquiries I give the following prices of the 1922 cars mentioned below.

The two seater Sizaire-Berwick costs £1,500, the four-seated tourer, £1,550, and the cabriolet and limousine, each seating seven, £1,800. All these models are fully equipped. The new 10 h.p. Calcott is listed at £350, while the 11·9 two seater, coupé, and four-seater, cost £495, £595 and £575 respectively. Fifty pounds reduction is now made on the 10·5 h.p. Charron-Laycock coupé, its price being £675, while the 15·20 Straker-Squire chassis costs £650—or with two or four-seated body, £850—and the four-seated six cylinder model is listed at £1,550.

Other revised prices include the following Paige models: the Glenbrook 20/25 h.p., complete £650; the Landaulette 25/30 h.p., complete £1,250; the All-weather 25/30 h.p., complete £1,195; the two-seated Bean £385, or as a coupé, £525; the 8 h.p. air-cooled Rover 230 guineas, and the De Dion. The last mentioned list is too lengthy to quote, but the

new figures are very moderate and can be obtained from the firm at Woodside Works, North Finchley, London.

Since the weak link in the chain of automobile perfection is still the thing that made motoring possible—the pneumatic tyre—any effort to minimise the danger normally to be apprehended from the puncture fiend is praiseworthy. I have heard great things of the latest puncture-healer on the market, known as Jackson's Impervo, and although I am usually rather sceptical with regard to manufacturers' claims, it really seems that we have something good in this new liquid.

I'm a very 'umble person, and consequently I say with all humility that one of the most striking and most admired exhibits at the recent show was not a car at all, but—the cover of our Show Number, and Mr. Elwin Neame's striking enlargement of THE MOTOR-OWNER mascot which formed its subject. Our heartiest thanks are due to Mr. Neame for his wonderfully effective execution of our idea.



Intrepid Hunter: "Dear me, my Rolls would be useful."

Silent Gears

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LIMITED

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GEAR changing is made practically noiseless with this perfect lubricant. Ambroleum absorbs shock, and the gears are manipulated with that ease and sweet movement which are only obtainable where a shock-absorbing effect is secured.

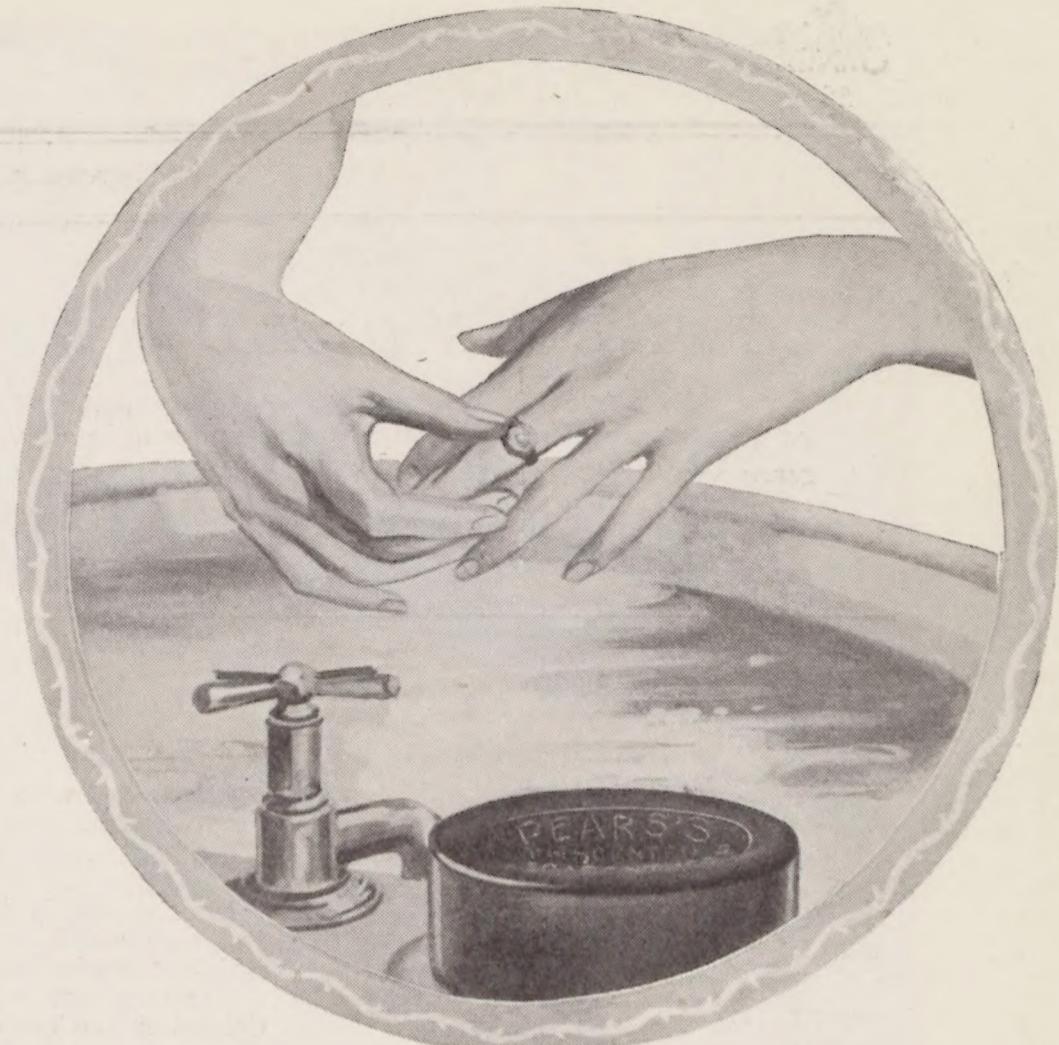
With the tenacity for which it is famed, Ambroleum adheres to the gears, and so provides an ideal system of lubrication. "It clings to the teeth," ensuring that there can be no possibility of the old gear box trouble of the wheels cutting channels, which is unavoidable with the stiff grease type of lubricant.

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We take this opportunity of informing the great public who use Pears' Transparent Soap that for many years we have made oval tablets, square cakes, glycerine soap and 'wash balls' that are most delicately scented, and, in addition, oval and square tablets perfumed with "Otto of Rose."

Pears' TRANSPARENT SOAP

Matchless for the Complexion

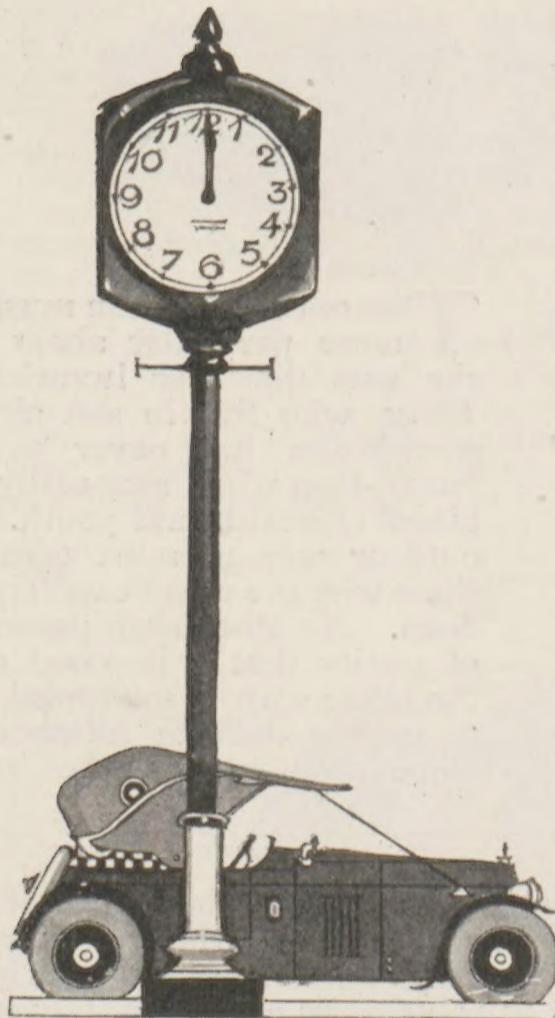
Have you used one of *Pears'* Golden Series?



WATCH THE ROADS AND YOUR LAMPS.

T H E R O A D S I N D E C E M B E R .

In a monthly journal it is not always possible to be absolutely up to date with road information. The information given below, however, is supplied by the Roads Department of the Automobile Association, and is not only authentic but, being in some cases anticipatory, may be taken generally as indicating local conditions on the first of the month.



THE following road information is compiled from reports received by the Automobile Association and Motor Union:—

Repairs are in hand in High Street, Berkhamstead, on the Aylesbury Road, which otherwise has a fairly good surface.

The Bath road is poor in places between Colnbrook and Taplow, then good to Hungerford; repairs mid-way between Slough and Maidenhead. High Street, Slough, is closed to traffic from London, which should proceed *via* Wellington Street during repairs. High Street, Eton, is also closed for repair, the alternative for Windsor being *via* Keates Lane. Full width remetalling in hand between Faringdon and Longcot.

Road widening is in progress on the Brighton road between Coulsdon and Merstham, and care is necessary on this stretch (unprotected telegraph poles). Repairs are in hand at Burgh Heath between County Oak-Crawley and Bolney-Hickstead; the surface being poor at Handcross, Bolney and Dale Hills, but otherwise fair.

Repairs are in progress at Ridge Hill on the Coventry road, which is poor from Towcester to Daventry, otherwise good.

Tarmac is being laid full width on the Eastbourne road at Godstone Sand Pits and between Hailsham and Polegate; the alternative for the latter being *via* Ersham Road, Hailsham, and Seaside Road, Eastbourne. Full width remetalling is in hand at Forest Row; surface otherwise generally fair.

The Folkestone road is in good condition, remetalling being in hand two miles south of Wrotham Heath.

Except for a poor stretch of one mile north of Alconbury the North road has a good surface to Stamford. Full width remetalling in centre of Stevenage and one mile south of Baldock.

Hastings road generally fair, repairs in hand between Pembury and Lamberhurst; caution advised through Robertsbridge.

Repairs in hand at Wycombe Marsh on the Oxford road, which otherwise is fair. Care necessary on Dashwoods and Aston Rowant Hills.

The Portsmouth road to Guildford is in good condition, then fair onwards. Repairs are in hand through Witney Camp. Full width repairs north of Liphook and at Portsdown Hill. The bridge over railway at Shalford, on the Guildford-Horsham road is half closed for rebuilding.

THE MOTOR-OWNER LIGHTING-UP TABLE.

*Lighting-up time is 4.23 p.m. in London on December 1st and 4.28 p.m. on January 1st.
Variations in other parts of the country on those dates are given below.*

BRISTOL	4.23	4.38	EXETER	4.42	4.47	MANCHESTER	4.11	4.26
BIRMINGHAM	4.26	4.30	FALMOUTH	4.49	4.45	NEWCASTLE	4.14	4.15
CARLISLE	4.17	4.21	GLASGOW	4.16	4.21	NORWICH	4.14	4.18
CARNARVON	4.33	4.37	INVERNESS	4.06	4.09	OXFORD	4.20	4.31
DERBY	4.22	4.26	JOHN O' GROAT'S..	3.53	3.54	PLYMOUTH	4.01	4.50
EDINBURGH	4.12	4.15	LEEDS	4.20	4.22	PORTSMOUTH	4.29	4.34

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